

The Struggle for the Self in Environmental Law: The Conversation between Economists and Environmentalists

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Those who draft, analyze, and evaluate environmental law do so on the basis of foundational assumptions that are as influential as they are hidden from explicit review. No one approaches environmental law without the baggage of a congeries of value preferences, ontological assumptions, and social aspirations.¹ Instead, we think about environmental law from a personal perspective informed by our experiences and dreams,² and especially by our descriptive assumptions, the priors that function below the surface to push and pull our arguments in particular directions.

1. See Richard J. Lazarus, *Restoring What's Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. REV. 703 (2000). Lazarus contends that the Supreme Court's decisions in environmentally related cases deviates from upholding ecological inquiry. *Id.* at 705.

2. Richard J. Lazarus, *Meeting the Demands of Integration in the Evolution of Environmental Law: Reforming Environmental Criminal Law*, 83 GEO. L.J. 2407 (1995). Lazarus refers to the utopian visions that shape environmental law as "symbolic rhetoric". *Id.* at 2407. This "rhetoric" does a disservice to the advancement of environmental law in two ways. First, the idealist language corrodes the legitimacy of the argument in the eyes of skeptics and moderates. Second, once people move beyond the rhetoric to critically examine environmental law, they are disappointed at its failure to fulfill the vision. Lazarus points out that environmental policies are riddled with conflicts and contradictions that render them incapable of achieving the utopian circumstances they promise. See also Cass R. Sunstein, *Paradoxes of the Regulatory State*, 57 U. CHI. L. REV. 407 (1990) (providing examples of regulations that actually undermine their proposed goals.); John P. Dwyer, *The Pathology of Symbolic Legislation*, 17 ECOLOGY L.Q. 233 (1990) (noting that the issue of the extent to which symbolic legislation serves a useful function for specific environmental policies is addressed and concluding that symbolic legislation inhibits effective decision-making).

Foremost among those guiding assumptions is a sense of "self."³ Do we see others and ourselves through the individualistic lens of personal responsibility,⁴ wherein the individual charts and maintains a personal course through life? Or do we see the self as something emerging from a wealth of social interactions, abidingly interdependent, ineluctably bound to others?⁵

How is the concept of the self integrated into environmental law? The initial component of the article describes alternative visions of the self to provide a framework for the argument. The second step in the argument is the establishment of the link between the prevailing concept of the self and the extent to which market arguments are given credence in establishing and enforcing environmental law. The subsequent analysis of the frequently unfriendly discourse between economists and environmentalists⁶ is designed to illustrate the impact of specific

3. See JAMES A. HOLSTEIN & JABER F. GUBRIUM, *THE SELF WE LIVE BY* 3 (1999). The authors point out that the concept of the self has been challenged and even denounced in recent years. Where self-improvement and self-awareness were once hailed as necessities to healthy functioning, these concepts are now criticized for undermining community values and promoting narcissism. *Id.*

4. For benefits of individualism see BRUCE A. ACKERMAN, *SOCIAL JUSTICE IN THE LIBERAL STATE* (1980); JOHN RAWLS, *POLITICAL LIBERALISM* (1993); and Allen E. Buchanan, *Assessing the Communitarian Critique of Liberalism*, 99 *ETHICS* 852 (1989). *But see* *THE INDIVIDUAL AND THE STATE IN CHINA* 20 (Brian Hook, ed., 1996). Individualism has come under scrutiny recently in Western culture, but the Chinese have believed the ideology to be deleterious for centuries. Chinese scholars, such as Lee Kuan Yew and Zhao Fusan, have written powerful condemnations of individualism. Individualism leads to isolation and self-pursuits that in turn lead to aggressive and even violent behavior in an effort to protect self-interests. For many Chinese, the Tiananmen Square uprising reaffirmed a pejorative view of individualism. *Id.*

5. See G. H. MEAD, *MIND, SELF, & SOCIETY* 138 (1934). Mead contemplates the issue of how to remove oneself from the self for the purposes of examining the self. The examination would hopefully reveal characteristics of the self, such as individuality or interdependence. *Id.* See also JACK CRITTENDEN, *BEYOND INDIVIDUALISM* 36 (1992). Communitarians as well as liberals propose answers to Mead's dilemma of how to evaluate the self. Communitarians assert that when an individual examines the "ends and values of the community," then the self is being examined. *Id.* Liberals, however, believe the self can step back from any situation and evaluate the traits, values, and principles employed by the self. *Id.*

6. Tensions between environmentalists and economists were recently highlighted in the protests against the World Trade Organization (WTO) in Seattle, Washington. Environmentalists argued that the WTO's economic policies added to environmental degradation. See *The Anxiety Behind Globalization*, *BUSINESS WEEK*, Dec. 20, 1999, at 188; Brian Bethune, *New beginning or eve of destruction?*, *MACLEAN'S*, Jan. 10, 2000, at 60; Steve Charnovitz, *World Trade and the Environment: A Review of the New WTO Report*, 12 *GEO. INT'L ENVTL. L. REV.* 523 (2000); Kevin R. Fitzherald, *All is in place for future prosperity*, *PURCHASING MAGAZINE*, Jan. 13, 2000, at 25; David Moberg, *After Seattle*, *IN THESE TIMES*, Jan. 10, 2000, at 14; Eric L. Richards

ontological assumptions about who we are on our assessment of environmental law. The concluding section urges those who wish to effect change in environmental law to do so with a more robust understanding of the self than is typically deployed in debates about particular environmental statutes.

I.

THE SELF AND ENVIRONMENTAL LAW

When we speak about who we are or believe ourselves to be, we adumbrate both the limits and possibilities for our development. Specifically, who we think we are shapes our attitude toward the environment and the alternative social mechanisms for interacting with it.⁷ For instance, when we tell ourselves that life is a jungle, we compel ourselves to rely on our own strengths to counter a hostile environment.⁸

Especially important for American conceptions of the self is the Robinson Crusoe story,⁹ a tale of self-reliant mastery of the environment. Self-reliance is the necessary change agent for

& Martin a. McCrory, *The Sea Turtle Dispute: Implications for Sovereignty, the Environment, and International Trade Law*, 71 U. COLO. L. REV. 295 (2000); and Dani Rodrik, *What Next for the WTO?: Three Critics Discuss Policy Alternatives*, THE AMERICAN PROSPECT, Jan. 17, 2000, at 18.

7. See THOMAS PRUGH, ET AL., THE LOCAL POLITICS OF GLOBAL SUSTAINABILITY 60 (2000) (hereinafter Prugh, Local Politics). The authors describe the environmental, social, and economic crises facing the world and what is necessary for it to be overcome: "Like a boat full of oarsmen drifting downstream toward a waterfall, a majority of the occupants need to pull upstream if they hope merely to stay in place, and real progress toward safety will require nearly everyone to row in unison away from the brink." *Id.* at 60. As appealing as this cooperative vision may be, the authors are quick to point out that rowing in unison is not an achievable goal. Because utopians are far from reality, these authors claim environmentalists should discard them as evaluative and learning models. *Id.*

8. See AMITAI ETZIONI, THE MORAL DIMENSION 1-19 (1988). Etzioni discusses this viewpoint's distressing impact on society. From the perspective of atomism the community is simply the aggregate of individuals. This position is especially important for environmental law because so many arguments on behalf of environmental regulation presume that an appeal to community is an appeal to the connective tissue that links one human to another, one generation to another, and one species to another. The resulting holism is referencing an entity that transcends society as just a collection of individual egos.

9. The Robinson Crusoe story is powerful in major part because of its simplicity. Were we to attempt to mimic in modern life the self-reliance of Crusoe as sole provider of all goods and services, we would be charting a life where family, and social relations are an impediment in that for Crusoe at least human networks were pleonastic.

those who see the self as independent.¹⁰ In turn, the social perspective that respects and applauds that self-reliance is known as "individualism."¹¹ This perspective is one that encourages personal domination of a hostile life space;¹² individualism in the United States¹³ directs both the promise and constraints of our legal development.¹⁴

The atomistic,¹⁵ or isolated self, views social and community interests, such as environmental protection, as extrinsic to its nature and identity as a moral agent.¹⁶ Michael Sandel calls this radically independent self "irreducibly" decontextualized.¹⁷ His point is that the independent self is situation dependent; choice arises from inside the character and cognitive structures of the individual person. The environment from this perspective is an

10. The atomism in this method of interacting with our environment assumes independent disembodied entities volitionally charting their own paths in pursuit of personal well being. Andrea Giampetro-Meyer, et. al., *Advancing the Rights of Poor and Working-Class Women in an Individualistic Culture*, 2 LOYOLA POVERTY L. J. 41, n. 2 (1996). Holding that the only purpose of society is to benefit the individual, atomism places a high value on negative liberty (the absence of government interference in the lives of its citizens). Atomistic psychology had a strong influence on the development of classical liberal thought. E.K. HUNT, PROPERTY AND PROPHETS: THE EVOLUTION OF ECONOMIC INSTITUTIONS AND IDEAS 39-40 (7th ed. 1995). This influence remains evident in the market-oriented thought of neoclassical economists today.

11. See ROBERT N. BELLAH, ET AL., HABITS OF THE HEART: INDIVIDUALISM AND COMMITMENT IN AMERICAN LIFE 23 (1985).

12. See Faye J. Crosby & Elisabeth P. Lubin, *Extending the Moral Community: Logical and Psychological Dilemmas*, 46 J. OF SOCIAL ISSUES 163-172 (1990). The article provides an interesting examination of problems arising when individuals seek to extend their moral communities beyond themselves. The authors conclude that despite the resulting obstacles extending the moral community does in fact preserve an equitable world.

13. See SEYMOUR MARTIN LIPSET, THE CONTINENTAL DIVIDE: THE VALUES AND INSTITUTIONS OF THE UNITED STATES AND CANADA 3 (1990) (discussing the power of individualism in directing American public policy).

14. See LAWRENCE E. MITCHELL, STACKED DECK: A STORY OF SELFISHNESS IN AMERICA, for a compelling account of the impact of individualism as a protector of existing property rights in American legal development against claims for greater social justice. By implication, the same argumentative strength can be used in resisting expanded environmental laws.

15. See Larry Alexander & Frederick Schauer, *On Extrajudicial Constitutional Interpretation*, 110 HARV. L. REV. 1359 (1997). Alexander and Schauer implicitly confirm the assertion that the communal interests are foreign to the atomistic self. The authors believe however, that atomistic selves can be coerced into promoting common interests through authoritative law. *Id.* at 1376. Authoritative law provides "uniform decisions on issues as to which people have divergent substantive views and personal agendas." *Id.*

16. See MARK JOHNSON, MORAL IMAGINATION: IMPLICATIONS OF COGNITIVE SCIENCE FOR ETHICS 67, 126-27 (1993).

17. MICHAEL SANDEL, LIBERALISM AND THE LIMITS OF JUSTICE 20 (1982).

omnipresent instrument available for use to activate personal ends.

II.

THE SELF, INDIVIDUALISM, AND MARKET ARGUMENTS

Individualism in any of its guises is characterized by the elevation of the individual's interests over the interests of the collective. Individualistic thinkers downplay their ties to others, the very links that are emphasized by those seeking more aggressive environmental regulation. A community from this perspective is *just* an aggregation of egos.¹⁸ From inside the individualism perspective referring to a community as an organic endeavor is a major mistake that threatens to weaken the potential muscle of personal agency.¹⁹ Hence, language of unification²⁰ and communal responsibility, such as claims that it takes a whole village to accomplish a goal, is seen as misguided in that it detracts from personal responsibility and thereby weakens social character.

However we conceive ourselves, we face a common problem—one that impinges regularly on our intelligent stewardship over the environment. Together we face a tragic gap between what we want from the world and what the world can provide. Consequently, we face the necessary yet daunting task of making decisions about the use of scarce resources. Mainstream economists are especially impressed with the efficacy of markets in answer-

18. In general, a community invokes connotations beyond a collective group of egos. The term is emotionally loaded to imply a cooperative, synergetic atmosphere. Thus far, however, there is no universal definition of community. See R. PLANT, ET AL., *POLITICAL PHILOSOPHY AND SOCIAL WELFARE* 205 (1980). Seeking to articulate the ambiguity of the term community, the authors cite A.H. Halsey who once said that community "has so many different meanings as to be meaningless." *Id.* at 205. But see JACK CRITTENDEN, *BEYOND INDIVIDUALISM* 132-33 (1992). Crittenden attempts to create a definition of community distinct from the definition of associations. There are, according to the author, four criteria for a community: 1) It must involve sharing a total way of life and not just interests; 2) It must be characterized by face-to-face relationships; 3) These relationships must result in not only concern for the well-being of the entire group, but a sense of obligation to see that the concern is meant; and 4) Self-identity must be seen in terms of the community and not the individual. *Id.*

19. See JACK CRITTENDEN, *BEYOND INDIVIDUALISM* 43-44 (1992). Personal agency is an essential part of the self. The agency process employs cognitive tools to restrain impulses and exercise judgement based on experiences as to what behaviors are appropriate. *Id.*

20. ARTHUR M. SCHLESINGER, JR., *THE DISUNITING OF AMERICA* (1992). Schlesinger calls for a unified American identity to be reflected in public education. Emphasis on individual cultural education, such as the policy of Afrocentrism, is an injurious fragmentation of the fragile American community.

ing the questions of allocation and distribution of these scarce resources.²¹ To be highly impressed with market decisions requires economists to make certain assumptions about the market.²² Most prominent, perhaps, among those assumptions is the ontological reality of the solitary, independent self.

Economists tend to argue that the individual reaches decision internally.²³ In other words, preferences are given and are thus not affected by external forces. Individuals are seen as mindful of these same external forces only insofar as they can harness them as productive inputs. Consequent distrust for collective institutions, like government, follows. While the assumptions implicit in this allegiance to market decisions have been questioned,²⁴ the link between the isolated self and the market as responsive to

21. *But see* William J. Novak, *Law, Capitalism, and the Liberal State: The Historical Sociology of James Willard Hurst*, 18 *LAW & HIST. REV.* 97 (2000). In Novak's assessment of Willard Hurst, the author addresses Hurst's views of the market. According to Novak, Hurst traduced the need to rely on the market to distribute scarce resources. He objected particularly to three outcomes of the market. First, Hurst believed the market monetizes all value. Second, he deplores the market's bias of short-term goals over long-term goals. Finally, Hurst believes market dominance masks socio-economic power. *Id.* at 121. Underneath the market's mask, Hurst finds a few powerful individuals who are willing to exploit others for the purposes of controlling the market. These self-centered individuals cannot be relied upon for efficiently distributing scarce resources. *Id.* at 122. *See also* ALAN SHIPMAN, *THE MARKET REVOLUTION AND ITS LIMITS* 90 (1999).

[P]roving that the simultaneous adjustment of interdependent markets leads to a general equilibrium, in which one set of relative prices clears all markets (including labor and capital markets), now and in the future, has not been an easy task. An intuitive grasp of the power of prices to align individuals' transaction plans, without recourse to a central one, was reached at least two centuries ago. Its mathematical refinement is still in progress, and has revealed shortcomings as well as strengths in the intuitive view. *Id.* at 90.

See generally RICHARD HOFSTADTER, *THE AMERICAN POLITICAL TRADITION* (1948); LOUIS HARTZ, *THE LIBERAL TRADITION IN AMERICA: AN INTERPRETATION OF AMERICAN POLITICAL THOUGHT SINCE THE REVOLUTION* (1955).

22. *See* DEBORAH STONE, *POLICY PARADOX: THE ART OF POLITICAL DECISION MAKING* 17 (1997). "A market can be simply defined as a social system in which individuals pursue their own welfare by exchanging things with others whenever trades are mutually beneficial." *Id.*

23. *See also* Alfred McCormack & Celia R. Taylor, *No Regrets in Reading Professor Farnsworth's Contribution*, 68 *GEO. WASH. L. REV.* 377 (2000) (reviewing E. ALLAN FARNSWORTH, *CHANGING YOUR MIND: THE LAW OF REGRETTED DECISIONS* (1998)). Farnsworth agrees with the assumption that decisions are reached internally. He contends that every promise originates as an internal decision. This decision may not necessarily be consciously known to the promisor. The internal decision is then evinced to the external world as a promise. *Id.* at 377.

24. *See e.g.* Kenneth G. Dau-Schmidt, *The Prospects For An Interdisciplinary Discourse on Law*, 1997 *WIS. L. REV.* 389, 418 (1997) (suggesting that sociology can help neoclassical economics "relax" its assumptions).

those individual desires is a powerful leitmotif for appreciating the evolution of environmental law.²⁵

Especially important for discussions of environmental law is the criticism of the isolated self on grounds that we are inculcated with certain norms of cooperation, and these norms sometimes dictate actions that are not purely self-interested.²⁶ These criticisms focus on the affiliative and empathetic aspects of the human character and are particularly significant to those hoping to strike chords of solidarity in discussions of environmental dilemmas.²⁷ In the environmental realm, the quality of market decisions is likely to fall under attack in particular industries when interactive effects or externalities²⁸ result in market prices and consequent purchases that fail to reflect consumer preferences, broadly construed.²⁹

When markets fail,³⁰ we turn to political solutions by default.³¹ However, mainstream economists would rarely argue for the

25. See generally Richard J. Lazarus, *Meeting the Demands of Integration in the Evolution of Environmental Law: Reforming Environmental Criminal Law*, 83 GEO. L.J. 2407 (1995).

26. See e.g. Christine Jolls et. al, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1477-79 (1998) (discussing how individuals display bounded rationality, bounded willpower, and bounded self-interest).

27. See also Christopher D. Stone, *What To Do About Biodiversity: Property rights, Public Goods, and the Earth's Biological Riches*, 68 S. CAL. L. REV. 577 (1995). Stone presents the positive and negative externalities applicable to the environment and also discusses the idea of the earth as a public good. But externalities are not especially compelling bases for public policy unless we agree that we are to some extent concerned about what happens to one another and form our first-order preferences according to that shared sense of humanity.

28. See COLANDER, MICROECONOMICS 117 (1998). An externality is "the effect that an action may have on a third party that the person who undertook that action did not take into account." The chlorofluorocarbons released from use of the common air conditioner serves as a pertinent illustration. Individual consumers buy the air conditioners with little to no thought of the impact on the earth's atmosphere and the destruction of the ozone layer. Externalities are illustrative of a serious failing of market decisions because markets possess no mechanism by which the interests of the third party can be integrated into prices and output decisions. According to market theory, price represents the value of the resources that went into the production of a good. If the calculation of a price excludes third party effects, it does not reflect social value of resources. Consequently, resources are not properly allocated. In summary, when externalities occur, the market does not allocate resources correctly because the prices do not reflect the cost or value of the good to the consumers.

29. See John Adams, *Cost-Benefit Analysis: The Problem, Not the Solution*, 26 ECOLOGIST 2-4 (1996) (discussing the impact of externalities on the lack of respect from environmentalists for unguided market outcomes).

30. See also ALAN SHIPMAN, *THE MARKET REVOLUTION AND ITS LIMITS* 35 (1999). According to Shipman, market failure occurs when at least one of the following arises: 1) There are not enough buyers and/or sellers; 2) Buyers and/or sellers

government to step in to improve our interaction with the environment³² because they generally believe that the government should play a minimal role in the market.³³ More specifically,

refuse to trade or set varying prices for a comparable item; 3) A party involved in a transaction has the transaction reversed or changed even when laws have not been broken; 4) Trade occurs unequally due to inaccurate pricing; or 5) Certain means of production are not clearly defined nor competitively priced. *Id.*

31. See Mark Sagoff, *Economic Theory and Environmental Law*, 79 MICH. L. REV. 1393, 1395 (1981). Sagoff criticizes the government's attempt to correct market failure through environmental legislation. With a pejorative tone, Sagoff asserts that legislation, such as the Clean Air and Clean Water Acts, do more than correct the market. These acts call for protection regardless of the costs thereby undermining market efficiency. *Id.*

32. See Henry A. Span, *Of TEAs and Takings: Compensation Guarantees for Confiscated Tradeable Environmental Allowances*, 109 YALE L.J. 1983 (2000). Tradeable environmental allowances (TEAs) are examples of government policy intended to improve interaction with the environment. A TEA is a permit granted to the purchaser for the right to either emit something into the atmosphere or take something from it. *Id.* at 1984. The permit system is intended to limit emissions and extractions by limiting the number of permits issued. TEAs are also tradable thereby promoting their efficiency. For example, "those who can most efficiently cut their pollution levels will sell their excess allowances to those for whom emissions reduction is more costly, while those who can most profitably fish will buy allowances from less profitable operations." *Id.* at 1985.

The article discusses a recent constitutional issue involving TEAs. Occasionally, the government decides to thwart the emission or extraction of certain elements and therefore confiscates a certain number of TEAs. The issue then arises as to whether the government is required by the Takings Clause of the Fifth Amendment ("Nor shall private property be taken for public use, without just compensation") to compensate the individual or organization from which they confiscated the TEA. *Id.* at 1985-86. The author concludes, "guaranteed compensation is unlikely to improve on the normal government practice of weighing the costs and benefits of courses of action that affect the value of TEAs." *Id.* at 2017.

See also Susan A. Austin, *Tradeable Emissions Programs: Implications Under the Takings Clause*, 26 ENVTL. L.J. 323 (1996); and Justin Savage, *Confiscation of Emission Reduction Credits: The Case for Compensation Under Takings Clause*, 16 VA. ENVTL. L. J. 227 (1997).

33. See ELTON RAYACK, NOT SO FREE TO CHOOSE 9 (1967). While Rayack focuses specifically on Milton Friedman's thinking, the principles set forth by Friedman are quite characteristic of mainstream economic thought. "[Friedman's] defense of a laissez-faire economy and his belief that the scope of government should be limited differs little from the economic philosophy expounded by Adam Smith in the *Wealth of Nations*, published in 1776." See also Robert H. Frank, *Feeling Crash-Resistant in an S.U.V.*, N.Y. TIMES, May 16, 2000, at A23. Frank, a Cornell economist, defends the Ford Motor Company's relentless production of Sport Utility Vehicles (S.U.V.'s) despite the negative environmental implications they have been found to have. He claims that "Consumers have voted with their dollars" and that Ford is merely supplying the demand for larger vehicles. The author also defends consumers' demand for S.U.V.'s. He makes the questionable assumption that consumers want bigger cars for safety reasons. Frank fails to acknowledge the rival causes for why consumers are motivated to want an S.U.V. For example, the culture has designated these vehicles as icons of high status. *Id.* Eventually, Frank does recognize that, for environmental reasons, demand may have to be curbed.

mainstream economists want the government to play the role of rule-maker and umpire.³⁴ Yet, the environmental hazards of such an abstract verity are multiple and significant.³⁵ Businesspeople do not plan to pollute;³⁶ their pollution is the result of the natural process of obeying the dictates of the solitary self for profit and low prices.³⁷

Reluctantly he asserts that "intrusive government regulation," such as a tax on vehicle weight or emission levels may have been imposed. *Id.*

34. Rayak, *supra* note 33, at 11-12. "Within this laissez-faire framework, Friedman sees the role of the government as being akin to that of a rule maker and umpire in a game. For the millions of participants engaged in economic activity, the government not only establishes the rules of the competitive game but also provides a mechanism whereby the rules can be modified, mediates differences over the meaning of the rules, and enforces compliance with the rules on the part of the few potential rule breakers."

35. See Amy Blaymore, *Retroactive Application of Superfund: Can Old Dogs be Taught New Tricks*, 12 B.C. ENVTL. AFF. L. REV. 1 (1985). According to the EPA, in 1981 alone, Americans produced more than 150 million metric tons of hazardous waste. These waste products offer loud testimony to the danger of reliance of the personal preferences of consumers to guide our environmental law. In the early 1980s, the EPA estimated that approximately ninety percent of wastes were disposed of improperly. B. BROWN, *LAYING WASTE-THE POISONING OF AMERICA BY TOXIC CHEMICALS* 2 (3d ed. 1980).

36. See *United States v. Reserve Mining Co.*, 380 F. Supp. 11 (D. Minn. 1974). The Reserve Mining Company is an example of a company that did not *plan* to pollute, but felt it had to for economic reasons. Reserve mined taconite on the shores of Lake Superior. During the mining process, taconite residue was dumped in the lake and resulted in severe water pollution. The government sued the company to stop dumping the taconite. The judge for the case sought a solution in which Reserve could continue mining while reducing the pollution. Dumping the taconite residue on land appeared to be the only alternative, but Reserve insisted that this was not financially possible if the company were to continue to make a profit. Therefore, the company felt it had to continue polluting for purposes of supplying the demand for taconite and for making a profit. Water disposal, and thus water contamination, continued until 1980 when Reserve finally switched to land disposal.

37. So quite logically retroactive liability is one of the forums for indirectly haggling about theories of the self. Since its enactment, the constitutionality of retroactive liability has been challenged in courts all across the country. *United States v. Monsanto Co.*, 858 F.2d 160 (4th Cir. 1988); *HRW Systems v. Wash. Gas*, 823 F. Supp. 318 (D. Md. 1993); *City of Philadelphia v. Stepan Chem.*, 748 F. Supp. 283 (E.D. Pa. 1990); *Kelley v. Solvent Co.*, 714 F. Supp. 1439 (W.D. Mich. 1989); *O'Neil v. Picillo*, 682 F. Supp. 706 (D.R.I. 1988); *United States v. Hooker Chem. & Plastics*, 680 F. Supp. 546 (W.D.N.Y. 1988); *United States v. Dickerson*, 640 F. Supp. 448 (D. Md. 1986); *United States v. Ottati & Goss, Inc.*, 630 F. Supp. 1361 (D.N.H. 1985); *Town of Boonton v. Drew Chem.*, 621 F. Supp. 663 (D.N.J. 1985); *United States v. Conservation Chem. Co.*, 619 F. Supp. 162 (W.D. Mo. 1985); *United States v. Shell Oil*, 605 F. Supp. 1064 (D. Colo. 1985); *Jones v. Inmont*, 584 F. Supp. 1425 (S.D. Ohio 1984); *United States v. S.C. Recycling Disposal Co.*, 653 F. Supp. 984 (D.S.C. 1984); *United States v. Price*, 577 F. Supp. 1103 (D.N.J. 1983); *United States v. Wade*, 546 F. Supp. 785 (E.D. Pa. 1982). *Cf. Aetna Cas. & Sur. Co. v. Pintlar Corp.*, 948 F.2d 1507 (9th Cir. 1991); *In the Matter of Penn Cent.*, 944 F.2d 164 (3d Cir.

III.

THE UNCOMFORTABLE CONVERSATION BETWEEN
ECONOMISTS AND ENVIRONMENTALISTS

A recent comment made about prominent economist and former Secretary of the Treasury, Lawrence Summers, by Jane Perkins, president of Friends of the Earth, in the *Wall Street Journal* on April 2, 1993 illustrates the extent to which some environmentalists disparage economists.³⁸ Concerned about Summers' potential appointment to a key international post in the Treasury Department, Perkins advised that the post, instead of going to an economist, should go to "a thinking, but *feeling* person with a *sense of justice*" (emphasis added). For environmentalists, the concept of justice³⁹ is inextricably bound to environmental protection.⁴⁰ As Perkins' contrast of Summers with a person having "a sense of justice" might imply, environmentalists believe econ-

1991); *O'Neil v. Picillo*, 883 F.2d 176 (1st Cir. 1989); *United States v. Kramer*, 757 F. Supp. 397 (D.N.J. 1991).

38. See also Sanjay Ranchod, *Fish, Markets, and Fisherman: The Economics of Overfishing*, 19 STAN. ENVTL. L.J. 307 (2000) (book review). "[I]n spite of many environmentalists' distrust of 'the dismal science' of economics, the recommendation that emerges from economic analysis actually results in less resource depletion than the biologists' recommendation." *Id.* at 310. .

39. See generally Richard A. Posner, *Review of Jeremy Waldron, Law and Disagreement*, 100 COLUM. L. REV. 582, (2000) (book review). In his book, Waldron challenges the notion that a consensus can be reached on a governing theory of justice. In Waldron's view, the varying theories of justices – which are oftentimes conflicting – erode the justification for judicial review. Waldron also sees coming to a consensus on a theory of common good equal daunting. See also MICHAEL WALZER, *SPHERES OF JUSTICE*, 313 (1983). The concept of justice, according to Walzer, is relative. Therefore, a way of life is just "if its substantive life is lived in a certain way – that is, in a way faithful to the shared understandings of the members." *Id.* at 313. Walzer's definition implies that justice and community approval are closely tied if not mutually exclusive. See also Carlos A. Ball, *Communitarianism and Gay Rights*, 85 CORNELL L. REV. 443, 450 (2000). Walzer sees the key to justice as the implementation of a system of "complex equality." Such a system would distribute goods according to social criteria dictated by the goods' social meanings rather than distributive criteria, such as money. *Id.*

40. See Lynton K. Caldwell, *Restoration Ecology as Public Policy*, 13 ENVTL. PRO. 275, 284 (1991) for the argument that economic analysis frequently neglects both ecological and ethical considerations. Distinguishing economic rationality from sound economic analysis, Caldwell alleges that the former, which dominates mainstream economic thought, leads to (and has led to) environmentally destructive consequences. By economic thinking he means the reductionist view that all human decisions are based on a rational calculus of costs and benefits. Because economic analysis is an essential tool in forming environmental policy, Caldwell concludes that we need not abandon economic thinking altogether but rather the sort of narrow, single-track economic thinking that is currently dominant.

omists generally lack appreciation for the gravity of environmental degradation.⁴¹

Instead, economists both articulate and, in effect, support a conception of the self that has wide resonance in our culture. Reflecting the classical liberalism⁴² that was its intellectual soil, the mainstream of the profession sees human agency as a matter of acting to advance our self-interest by exercising reason instrumentally to choose the most efficient means toward the pursuit of human ends. This view sees the essence of the solitary self in willing to pursue certain ends rather than others, and rationality as exclusively instrumental, acting as an adjunct to the will.⁴³ The environment is but an input, something for the marketplace to organize on behalf of consumer statements of preferences as they are read from demand curves.

As a result economists and environmentalists often keep their distance from one another. While this paper argues that differing views of the self are responsible for the lack of productive interchange between the two groups, the actual discourse focuses on derivative levels of trust in market prices as a prescriptive guide for environmental policy. On several grounds, environmentalists are hesitant to heed economic guidelines for decision making.⁴⁴

From the perspective of the typical economist, market price reflects a useful measurement of the economic value of goods and services,⁴⁵ while providing important incentives to buyers and sellers to use resources consistent with these measurements.⁴⁶ Thus, naturally enough, economists attempt to use price

41. Robert Repetto, *Accounting for Environmental Assets*, 266 SCIENTIFIC AMERICAN 94-100 (1992).

42. See JACK CRITTENDEN, *BEYOND INDIVIDUALISM* 164-74 (1992). The values of liberalism include autonomy, individualism, dialogue, liberty, openness, pluralism, progress, reason, and tolerance. *Id.*

43. See Etzioni, *supra* note 8 for a discussion of the "voluntaristic" conception of agency characteristic of political liberalism.

44. See Dana Clark & David Downes, *What Price Biodiversity? Economic Incentives and Biodiversity: Conservation in the US*, 1 J. ENVTL. L. & LITIG. 9, 18 (1996).

45. See generally JOSEPH S. BERLINER, *THE ECONOMICS OF THE GOOD SOCIETY* 18 (1999). (discussing how different prices, or wage rates, are applied to various jobs depending on the employment demand).

46. See Daniel C. Esty, *Toward Optimal Environmental Governance*, 74 N.Y.U. L. REV. 1495 (1999); Carol M. Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emission Trades and Ecosystems*, 83 MINN. L. REV. 129 (1998); and Norman W. Spaulding III, *Note, Commodification and Its Discontents: Environmentalism and the Promise of Market Incentives*, 16 STAN. ENVTL. L.J. 293 (1997).

as a means to value air,⁴⁷ water,⁴⁸ species preservation,⁴⁹ and other environmental goods.⁵⁰ The result logically enough would be to create environmental policies based on comparing the willingness to pay for the protection of some environmental asset with the willingness to pay for a product, where in the parlance of economics "willingness to pay" reflects an ascribed price. This process of cost-benefit analysis is a form of economic decision making that aims to maximize the welfare of individuals and ipso facto, from their perspective, the welfare of society.⁵¹

47. See CARLA RAVAIOLI, *ECONOMISTS AND THE ENVIRONMENT* 31 (Richard Bates trans., Zed Books 1995). Any individual accused of polluting the air can purchase a "pollution coupon" that permits him or her to continue polluting. When, and if, a clear method of production is devised, then the holder of the pollution coupon can sell it to another. The coupon program has been implemented sparingly. *Id.* at 31.

48. See JoAnee L. Dunec, *Economic Incentives: Alternatives for the Next Millennium*, 12 NAT. RESOURCES & ENVTL. 341 (1998). Economic incentive programs advocated by economists for a variety of environmental problems, including water transfers, historic preservation, species preservation, and air emission trading.

49. See Clark & Downes, *supra* note 44, at 18.

50. See Jennifer L. Bolger, *Creating Economic Incentives to Preserve Unique Ecosystems: Should Wisconsin Adopt a Private Wetlands Mitigation Banking Policy?*, 83 MARQ. L. REV. 625 (2000). Bolger argues in favor of implementing a wetlands mitigation bank as a method of preserving Wisconsin's wetlands while satisfying economic demands. In its simplest form the banks use "market based, preventative measures and economic incentives to encourage wetland preservation by allowing public or private entities to develop or fill in wetlands once they have passed the permitting process and purchased applicable tax credits." *Id.* at 626.

Wisconsin did not originate the idea for mitigation banks. Several other states have similar programs with varying degrees of success. New Jersey was the first to enact a wetlands mitigation bank in 1987 and reports successful development. *Id.* at 654. California has one of the most aggressive programs, as it has implemented approximately one hundred mitigation projects. However, most these were not completed. As of 1998, California had three working mitigation banks. *Id.* The Everglades in Florida is one of the least successful attempts. Florida's program differed from other states though in the sense that it used a general compensatory mitigation program without a bank. Legislation in Maryland protects the wetlands of the Chesapeake Bay area through mitigation. While the legislation is extensive, it is criticized for being area specific. *Id.* Finally, the Bayou in Louisiana boasts of a booming mitigation program involving the Tenneco Oil bank of the coast. *Id.*

51. See Bolger, *supra* note 50, at 641. Wetland mitigation banks, when successful, illustrate how the cost-benefit analysis applied by economists can benefit the individual and the environmental community. For example, a mitigation bank in Florida sold its credits for \$45,000.00 per acre. The land had been purchased for \$7,000.00 per acre. The increased value of wetlands indicates that it had not been stripped of its economic value during a time of protecting. The individual seller benefits from the profits while the community benefits from the preservation of the wetland's value. *Id.* These banking programs also simultaneously benefit the individual and the environmental communities by restoring the most efficient and productive wetlands while the less useful wetlands are destroyed. However, these less valuable wetlands are not destroyed until the other areas have been expanded. Thus, a "no-

One reason environmentalists reject the use of cost-benefit analysis is because it must “reduce all concerns to cash.”⁵² With cost-benefit analysis, dollar votes in the marketplace are used to indicate how people value things.⁵³ But the possibility that different types of goods are incommensurable⁵⁴ is one largely foreign to economics.⁵⁵

Cost benefit analysis is also derided by those who see the isolated Lockean self as derisive toward a rights-based value the-

net-loss system of wetland management” is observed. *Id.* See also Lawrence R. Liebsman and David M. Plott, *The Emergence of Private Wetlands Mitigation Banking*, 13 NAT. RESOURCES & ENVTL. 341 (1998); and Shirley Jeanne Whitsitt, *Wetlands Mitigation Banking*, 3 ENVTL. L. 441 (1997).

52. See Murray B. Rutherford, Jack L. Knetsch & Thomas C. Brown, *Assessing Environmental Losses: Judgements of Importance and Damage Schedules*, 22 HARV. ENVTL. L. REV. 51, 56 (1998). The authors note that while markets may be useful in this aspect, environmental goods are “no less economically valuable” because they are nonpecuniary and are not traded in markets. They argue what that what defines economic value is the “willingness to sacrifice other goods and services in order to obtain or retain something . . .” *Id.* at 56. Because people are willing to sacrifice for the sake of the environment, the environment must have some sort of value in and of itself.

53. See generally, HORST SIEBERT, *ECONOMICS OF THE ENVIRONMENT*, 72-79 (1995) (explaining that in neoclassical economics a Pareto optimal allocation entails maximizing individual preferences. It requires that the “aggregated willingness to pay be equal to the opportunity costs of environmental quality.” *Id.* at 78.

54. See THOMAS PRUGH, ET AL., *NATURAL CAPITAL AND HUMAN ECONOMIC SURVIVAL* (2d. ed. 1999) (hereinafter Prugh, *Natural Capital*). Natural capital recognizes that certain environmental “goods” are incommensurable and nonrenewable. For instance, fossil fuels and mineral deposits are nonrenewable natural capital. *Id.* at 50. Prugh reminds his readers that human technology is far from replicating these nonrenewable resources; yet their role in daily functioning of the planet is not diminishing. In fact, the role of these resources is so important that “natural capital is beyond price.” *Id.* at 65. These nonrenewable resources however, are depleted at a rate that is too slow and abstract for the general public to grasp thereby failing to generate a movement toward preservation. *Id.* at 51. See also Cass R. Sunstein, *Endogenous Preferences, Environmental Law*, 22 J. LEGAL STUD. 217, 247 (1993) (resigning to the notion that environmental values are incommensurable with economic values).

55. See Matthew Adler, *Incommensurability and Cost-Benefit Analysis*, 146 U. PA. L. REV. 1371, 1371 (1998). This issue of “monetized costs and benefits” can be undermined by the possibility that some goods are incommensurable. Incommensurability occurs when there is no common scaling procedure with which all goods can be ranked along a single metric. *Id.* at 1376. Thus if environmental goods and other types of products are incommensurable then a monetary measurement cannot be used to compare the two types of goods. For example, a judgement made that a mountain is “really worth \$10 million is inconsistent with the way that we (or most of us) value the mountain. This is because the mountain is valued through a different kind of valuation from the \$10 million.” *Id.* at 1377. See also, Nick Smith, *Incommensurability and Alterity in Contemporary Jurisprudence*, 45 BUFFALO L. REV. 503, (1997) (explaining incommensurability theory in more detail).

ory.⁵⁶ These critics see an inherent worth in the environment.⁵⁷ They believe that plant and animal life have an absolute right to be protected regardless of the social benefits or costs they might generate.⁵⁸ These environmentalists reject the tendency of economists to “treat every valued thing as a good or commodity that can and should be traded in the market.”⁵⁹ In short, the utilita-

56. See generally JOHN LOCKE, *TWO TREATISES OF GOVERNMENT* 305 (Peter Laslett ed., Cambridge University Press 1967) (1690). Locke asserted that every person owned their own body as well as the products of the body's physical labor. This ownership entitled individuals to rights over themselves and their possessions. See also Lynda J. Oswald, *Property Rights Legislation and the Police Power*, 37 AM. BUS. L.J. 527 (2000) “John Locke stressed the critical role that property plays in supporting a capitalist society, arguing that unless individuals can be certain that property rights will be recognized, they will have little incentive to develop.” *Id.* See generally Radhika Rao, *Property, Privacy, and the Human Body*, 80 B.U. L. REV. 359, 368 (2000); and Daryl J. Levinson, *Making Government Pay: Markets, Politics, and the Allocation of Constitutional Costs*, 67 U. CHI. L. REV. 345, 398 (2000).

57. See Clive L. Spash, *Ethics and Environmental Attitudes With Implications for Economic Valuation*, J. ENV. MGMT., 403 (1997). Spash asserts that individuals who believe that aspects of the environment have inherent worth reject the notion of neoclassical economics that a tradeoff can always be made as long as enough compensation is offered in return. Denying that every commodity has a price for which it can be traded is “regarded by neoclassical economists as representing lexicographic preferences.” *Id.* at 406. Under this sort of circumstance the axiom of continuity required when analyzing indifference curves is violated and thus the “utility functions are undefinable for an individual” *Id.* Therefore, any attempt at cost-benefit analysis is bound to err. See generally, E. KULA, *HISTORY OF ENVIRONMENTAL ECONOMIC THOUGHT*, 177 (1998). “If features of the natural environment are so valuable to some individuals, who would accept nothing in compensation, then the traditional welfare economics which underpin cost-benefit analysis would no longer be sufficient.”

58. See Kenneth M. Casebeer, *The Empty State and Nobody's Market: The Political Economy of Non-Responsibility and the Judicial Disappearing of the Civil Rights Movement*, 54 U. MIAMI L. REV. 247 (2000); John A. Hall, *Human Rights and the Garment Industry in Contemporary Cambodia*, 36 STAN. J. INT'L L. 119 (2000); Brian F. Havel, *The Constitution in an Era of Supranational Adjudication*, 78 N.C. L. REV. 257 (2000); Richard C. Reuben, *Constitutional Gravity: A Unitary Theory of Alternative Dispute Resolution and Public Civil Justice*, 47 UCLA L. REV. 949 (2000); and Anna M. Taruschio, *The First Amendment, the Right Not to Speak and the Problem of Government Access Statutes*, 27 FORDHAM URB. L.J. (2000).

59. See Thomas A. More, James R. Averill, and Thomas H. Stevens, *Values and Economics in Environmental Management: A Perspective and Critique*, J. ENVTL. MGMT. 397 (1996). The authors make a distinction between intrinsic value which is based on inherent worth and existence value, which emphasizes human satisfaction. Environmentalists believe that the environment has inherent worth or intrinsic value and argue that values that are anthropocentric, such as existence value, are not a complete means for evaluating the environment. Thus, it is argued that cost-benefit analysis cannot be applied to an environmental good when the values that are employed are “human use values and reflect human benefits and costs.” *Id.* at 403.

rian approach of economics⁶⁰ clashes with the deontological viewpoint of these environmentalists.⁶¹

Because they consider environmental protection to be a moral imperative, environmentalists often consider costs to be “an irrelevant distraction at best, or a harmful exercise at worst.”⁶² Environmentalists find it morally repugnant when economists attempt to put a price on “nature’s bounty.”⁶³ The controversy over the spotted owl in the Northern California forests is a case in point.⁶⁴ While environmentalists maintain an “at any cost” at-

60. See Keith N. Hylton, *Symposium: Punitive Damages and the Economic Theory of Penalties*, 87 GEO. L.J. 421 (1998). The utilitarian approach to economics manifests itself in several ways, including the creation of an economic theory of penalties. This theory, developed by Cesare Beccaria, operated under the principle that “penalties should be set at a level that eliminates the gain to the offender, but not much above that level because harsh penalties encourage harsh behavior.” See generally JOHN STUART MILL, *UTILITARIANISM* 1 (1861).

61. See Jane B. Baron and Jeffrey L. Dunoff, *Against Market Rationality. Moral Critiques of Economic Analysis In Legal Theory*, 17 CARDOZO L. REV. 431, 463-470 (1996). This concept is termed “universal commodification” and the article addresses whether all objects or services should be analyzed in terms of cost or price. Baron and Dunoff cite Margaret J. Radin’s theory about the commodification of such items. Radin has drawn a distinction between personal and fungible property. When an object is fungible “the value for the holder is the exchange or market value.” *Id.* (quoting Margaret J. Radin, *Residential Rent Control*, 15 PHIL. & PUB. AFF. 350, 363 (1986)). Objects that are personal property have a “unique value for the individual”, and it is not apparent that they should be subject to free trade the way an ordinary commodity would.

62. Turner T. Smith, Jr. & David B. Riukin, Jr., *Beyond Good and Evil*, 14 ENVTL. F. 19, 22 (1997).

63. FRANCIS CAIRNCROSS, *COSTING THE EARTH* 1 (1992).

64. See Brent Foster, *The Failure of Watershed Analysis Under the Northwest Forest Plan: A Case Study of the Gifford Pinchot National Forest*, 5 HASTINGS W.-N.W. J. ENV. L. & POL’Y 337 (1999). The preservation of the spotted owl species in Northern California was threatened by the timber production in the forests. The Audubon Society filed numerous lawsuits on behalf of the spotted owls. The owls lived in old growth forests, which used to be considered absent of biological activity. Once it became obvious that the owls depended on these areas, preservationists demanded that timber production stop for the purposes of maintaining the spotted owl population. The timber company and its employees adamantly resisted the call to stop timber production. They argued that the economic ramifications of cessation, including loss of income, loss of jobs, loss of supply, had deleterious effects on the human population, both local and global. These harmful economic effects outweighed the need to save the spotted owls.

The preservationists and the timber companies battled relentlessly for several years. An agreeable management plan was not developed until 1993 when President Clinton organized a meeting in Portland, Oregon to bring the two sides together. The meeting’s attendants produced the Northwest Forest Plan. Much to the preservationists’ dismay, the Plan permitted extensive logging in the old-growth forests. Logging could continue at a rate that allowed for conservation of the spotted owl. Thus, a guarantee from extinction due to logging was not granted as the environmentalists had hoped it would be. *Id.* at 339-40.

titude about the preservation of this species,⁶⁵ economists are constantly wanting to know the costs of such preservation. Additionally, much to the disgust of environmentalists, many economists even suggest pecuniary losses associated with saving the owl are simply not worth it.⁶⁶

Keekok offers insight into the causes of these contrasting pecuniary orientations in his discussion of Locke⁶⁷. Quoting the seventeenth century philosopher's claim that the introduction of money would emancipate the accumulation process from "the working of nature," Keekok argues that Locke gave money a "new function" and a "new legitimation" by "using it as an *ontological substitute for natural resources*" (emphasis added). He then goes on to assert that economists have followed this line of thought, equating money with capital and capital with wealth. Keekok's comments regarding this approach captures environmentalists' aversion to any dominance by pecuniary concerns in public policy debates.

Cost benefit analysis, though, is but one of several habits of economic reasoning that separates them from environmentalists.⁶⁸ Much to the annoyance of environmentalists, economists

See also Seattle Audubon Soc'y v. Evans, 771 F. Supp. 1081 (W.D.Wash. 1991); Seattle Audubon Soc'y v. Moseley, 80 F.3d 1401 (9th Cir. 1996); Northern Spotted Owl v. Hodel, 716 F. Supp. 479 (W.D. Wash. 1988); Northern Spotted Owl v. Lujan, 758 F. Supp. 621 (W.D. Wash. 1991); Lane County Audubon Soc'y v. Jamison, 958 F.2d 290 (9th Cir. 1992); portland Audubon Soc'y v. Lujan 712 F. Supp. 1456 (D. Or. 1989); Portland Audubon Soc'y v. Lujan 795 F. Supp. 1489 (D. Or. 1992); Seattle Audubon Soc'y v. Espy, 998 F.2d 699 (9th Cir. 1993).

65. *See* Tenn. Valley Auth. v. Hill, 437 U.S. 153, 184 (1978). With the enactment of the Endangered Species Act, Congress promised that species preservation would be achieved "whatever the cost." *Id.*

66. *See* Northwest Forest Res. Council v. Glickman, 82 F. 3d 825 (9th Cir. 1996) (demonstrating a concern that the protection of the spotted owl was reducing timber production in the Pacific Northwest.)

67. KEEKOK LEE, SOCIAL PHILOSOPHY AND ECOLOGICAL SCARCITY, 164-71 (1989).

68. *See* RAVAIOLI, *supra* note 47, at 127-28. In an interview with Herman E. Daly, an economist with the World Bank's Environmental Department, Ravaioli asked Daly how he believed economic thought impaired environmental policy. His answer illustrates how economists view the use of resources differently from environmentalists.

The basic error is that of a mechanistic epistemology, by which the economic process is represented as a circular movement, closed and reversible, moving between production and consumption, without taking into account the physical and biological aspects of economic activity, which operates on natural elements subject to exhaustion on the one hand, and deterioration through entropy on the other. Traditional economics behaves as if nature were a free good, immutable and un-

are vigorous advocates of unfettered economic growth.⁶⁹ Abramowitz attributes this attitude to economists' practical judgment "that a change in economic welfare implies a change in total welfare in the same direction if not the same degree."⁷⁰

Environmentalists, however, all too rarely distinguish among types of economic growth.⁷¹ Instead, they tend to see production and consumption as the causes of environmental problems.⁷² That some growth might be supportive of their basic value preferences is generally overlooked.

This criticism of economic thinking as paying too much attention to GNP levels to the detriment of human well being⁷³ is in

limited. This means that the fear that the macroeconomy might grow too much with respect to the planet's ecosystem is completely absent from economic theory.

Id. . If economists truly believe that the environment is an unlimited resource available for exploitation, then a seemingly impregnable barrier has been placed between them and environmentalists. This belief however has mitigated in the last two decades as a result of increased environmental awareness. See generally HERMAN E. DALY, FOR THE COMMON GOOD: REDIRECTING THE ECONOMY TOWARD COMMUNITY, THE ENVIRONMENT, AND A SUSTAINABLE FUTURE (1991).

69. See Gary D. Meyers & Simone C. Muller, *The Ethical Implication, Political Ramifications and Practical Limitations of Adopting Sustainable Development as National and Intrnational Policy*, 4 BUFF. ENVT'L. L.J. 1, 21 (1996). The authors present detailed criticisms of the neoclassical paradigm and the challenges that sustainable development places upon it, arguing that to achieve sustainable development traditional economic thinking must be altered. But see Ryan L. Witter, *Reconciling the GATT and WTO with Multilateral Environmental Agreements: Can We Have Our Cake and Eat it too?* 11 COLO. J. INT'L ENVTL. L. & POL'Y 223, 230 (2000). In this article, the author asserts that the assumption that economic growth is inevitably bad for the environment is false *Id.*

70. HERMAN DALY, STEADY STATE ECONOMICS, 224-40 (1991).

71. See SHIPMAN, *supra* note 21. For a description of the Harrod-Domar model of growth. *Id.* at 140-43. For a description of the neoclassical model of growth. *Id.* at 138. For a description of the post-neoclassical model of growth. *Id.* at 154. For a description of unbalanced growth. *Id.* at 143.

72. See Scott Holwick, *Transnational Corporate Behavior and its Disparate and Unjust Effects on the Indigenous Cultures and the Environment of Developing Nations: Jota v. Texaco, a Case Study*, 11 COLO. J. INT'L ENVTL. L. & POL'Y 183 (2000). Holwick vehemently opposes economic growth in Columbia, Ecuador and other developing countries because he feels it has stifled indigenous cultures. He quotes a Native's account of the transformation as reported by Alan Thein Durning:

Once we were happy in our country and we were seldom hungry, for then the two-leggeds and the four-leggeds lived together like relatives, and there was plenty for them and for us. But the wasichus [whites] came, and they have made little islands for us and other little islands for the four-leggeds, and always these islands are becoming smaller, for around surges the gnawing flood of the wasichus. *Id.* at 183.

73. See PRUGH, *Natural Capital*, *supra* note 54. The GNP is a highly revered mechanism for gauging economic vitality. However, the GNP is a limited measurement that virtually ignores what Prugh calls natural capital. The failure to consider environmental factors in the calculation of the GNP reflects the attitude of many economists that natural resources and a healthy economy are not necessarily interre-

actuality a thinly disguised rebuke of the conception of the self that results in general approval of market mandates. Consumers seem to have an unquenchable thirst to consume;⁷⁴ hence, from an economic perspective a good economy is one that through wealth expansion makes the desired consumption possible.⁷⁵

lated. *Id.* at 79. "Factories and machinery are counted as productive capital, and when they wear out or suffer accidental damage it is labeled capital consumption and the value of the loss is subtracted from the GNP. Not so for natural capital; the wear and tear on forests, soil, air, and water caused by their exploitation is not subtracted from their value." *Id.* at 85. See also R. Repetto, *Accounting for environmental assets*, SCI. AM., June 1992, at 94. A case study of Costa Rica reveals the danger in not accounting for natural capital losses. In 1989, 3.2 million cubic meters of timber were destroyed. Erosion on farmlands and pastures resulted in a 17 percent loss of the value of annual crops and a 14 percent loss of the value of livestock. From 1970 to 1989, Costa Rica's forests, soils, and fisheries depreciated in value by \$4.1 billion – a total greater than the average value of one year's GDP. By not calculating these environmental losses, statisticians overestimated the net rate of capital formation by more than 70 percent. *Id.* at 97-98. See generally Brian White, *In dollars and sense*, 288 SCI. 1139 (2000). (Discussing economists' and political scientists' tendency to undervalue environmental resources).

74. See Greg Johnson, *From Pokemon to Palm Pilots, It was the Year of the Consumer; Americans, Flush with Confidence, Cash and Credit, are Eager Participants in the Ritual of Shopping*, L.A. TIMES, Dec. 26, 1999, at C1. Johnson's article cites total retail sales for 1999 at an estimated \$790 billion. The author also notes the trend among consumers to want the best product regardless of the price. For decades shopping was a necessity of life, but now it has become a statement of lifestyle. Additionally, the author feels that American consumerism will penetrate the borders of other countries. "Marketers, who figure that what's good for America is good for the rest of the world, are turning their attention to newly democratized nations and emerging economies." Johnson does not anticipate that consumerism will reach similar levels in other because the environmental reality is that few of these other countries have the natural resources or demographics to support consumerism. What the author fails to note is that it is not just individual countries that lack the resources to sustain consumerism, but the entire world, including the United States.

See also Kathleen Sullivan, *Paving Our Way to L.A.*, SEATTLE POST-INTELLIGENCER, Jan. 6, 2000, at A13. (noting the increased consumerism in the Seattle area as a result of the stable economic situation); but see *Wal-Mart Goes Green for All Seasons; WorldWise and Wal-Mart Team Up to Lead Trend in Environmental Consumerism*, PR NEWswire, Apr. 17, 2000. (noting that while reaping the benefits of Americans' drive to consume, Wal-Mart is also taking an environmentally responsible approach to their product line by carrying new environmentally friendly products, such as pet bowls made from recycled plastic bottle tops, or planters made from recycled shrink wrap).

75. This position tacitly suggests that continuous growth is necessary for a good economy. But see PRUGH, *NATURAL CAPITAL*, *supra* note 54, at 12. Prugh recalls John Stuart Mills' response to the notion of continuous growth: that it was an impossibility. Mill also felt that even if perpetual growth were possible, it was not advantageous. All economies eventually reach a "steady state" where growth ceases. Prior to this state individuals pursue materialistic goals due to lack of stability, but once growth is thwarted, then nonmaterialistic goals can be pursued. *Id.* at 12.

Little attention is turned towards the fact that GNP excludes many environmental costs⁷⁶ that arise outside the market such as the "costs to society of pollution damage, the benefits of pollution prevention, the costs associated with depletion of natural resource stocks, and the benefits of resource conservation."⁷⁷ Consequently, environmentalists question the wisdom of using GNP as an indicator of total welfare in large part because the costs of environmental degradation are ignored in calculating the GNP.⁷⁸

Environmentalists argue that as long as the GNP expands through the massive releases of greenhouse gases into the atmosphere, rampant deforestation, and health-threatening air pollution, it is nonsensical to equate this common measure with progress.⁷⁹ Fortifying this argument,⁸⁰ Miller points out that the \$2.2 billion spent by Exxon to clean up the *Valdez* spill⁸¹ as well as the \$1 billion spent because of the 1979 nuclear accident at Three Mile Island⁸² both increased the GNP.

Another stream of criticism stems from environmentalists' critique of the implicit use of "frontier models" in economic analy-

76. Art Kleiner, *The Art, the Grasshopper, and the GNP*, 51 GARBAGE 44-49 (1993).

77. See Daniel H. Cole, *What is the Most Compelling Environmental Issue Facing the World on the Brink of the Twenty-first Century: Accounting For Sustainable Development*, 8 FORDHAM ENVTL. L.J. 123, 123 (1996). Cole gives an example of the likelihood that toxic dumping will increase production in a variety of industries such as health care or those that must clean-up the toxins. This increase will increase national income and thus "as far as national income statistics are concerned, toxic waste discharges paradoxically provide net economic benefits for society." *Id.*

78. See R.Repetto, *Accounting For Environmental Assets*, SCI. AM., June 1992, at 73.

79. See LESTER BROWN, *STATE OF THE WORLD* (1991).

80. TYLER G. MILLER, *LIVING IN THE ENVIRONMENT* 658 (1992).

81. See *Gulf of Mexico Oil Spill Prevention and Response Act: Hearing before the Committee on Energy and Natural Resources*, 101 Cong. 1 (1989); *Oversight of oil spill protections for the Great Lakes: Hearing before the Subcommittee on Oversight of Government Management of the Committee on Governmental Affairs*, 101 Cong. 1 (1989); *Budgetary implications of the Exxon Valdez oil spill settlement: Hearing before the Task Force on Urgent Fiscal Issues of the Committee on the Budget*, 102nd Cong. 1 (1991); see also BRUCE M. OWEN ET AL., *THE ECONOMICS OF A DISASTER: THE EXXON VALDEZ OIL SPILL* (1995), ART DAVIDSON, *IN THE WAKE OF THE EXXON VALDEZ: THE DEVASTATING IMPACT OF ALASKA'S OIL SPILL* (1990).

82. See *Who Pays for Three Mile Island*, N.Y. TIMES, Dec. 19, 1980, at A34 (editorial) (tracing the debate over whether the federal government or the Nuclear Regulatory Commission should pay for the cost of cleanup – an exorbitant bill that includes replacing power, environmental cleanup, lost revenues and infrastructure repairs).

sis.⁸³ According to this model, individual actions have a generally negligible effect on the community. Each person uses the land to his/her economic advantage with little or no consequences for society at large. Furthermore, land use is encouraged, for in the Lockean tradition,⁸⁴ unused land is wasted land.⁸⁵

Environmentalists criticize the frontier economic model for its long-run implications. Miller, for example, argues that because it is based on the desirability of rapid and unmanaged economic growth⁸⁶, this model is both obsolete and dangerous.⁸⁷ Another criticism is that the frontier model ignores the fact that the economic system is limited by the environment from which it draws its inputs and into which it discharges its residuals.⁸⁸

Environmentalists are also especially concerned about the implications of situations for which environmental improvement might be identified with poor economic results, at least when measured by GNP.⁸⁹ The logic here is that the reduction in something counted in market terms will not be offset in the pub-

83. See PETER BAUER, *THE DEVELOPMENT FRONTIER: ESSAYS IN APPLIED ECONOMICS* (1991).

84. See Locke, *supra* note 56.

85. JEREMY RIFKIN, *ENTROPY: A NEW WORLD VIEW* 26-27 (1980).

Reading Locke from our present-day concern with ecology, one has the unnerving feeling that he would not be satisfied until every river on earth were dammed, every natural wonder covered with billboards, and every mountain turned into rubble to produce oil shale. With Locke, the fate of modern man and woman is sealed. From the time of the Enlightenment on, the individual is reduced to hedonistic activities of production and consummations, to find meaning and purpose. People's needs and aspirations, their dreams and desires, all become confined to the pursuit of material self-interest.

Id.

86. See Carlos Davidson, *Economic Growth and the Environment: Alternatives to the Limits Paradigm*, *BIOSCIENCE*, May 2000, at 433-40. While economists tend to see the possibility of growth as limitless and continuous, biologists, environmentalists, and ecological economists believe that biological and physical limits constrain economic growth. Interestingly, Davidson argues that the "limits paradigm" is actually detrimental to the conservation cause. By claiming that limits exist, those reluctant to accept environmental measures can reason that if an end is inevitable, then conservation efforts only prolong the inevitable.

87. See *supra* note 37.

88. See TIMOTHY O'RIORDAN & KERRY R. TURNER, *AN ANNOTATED READER IN ENVIRONMENTAL PLANNING AND MANAGEMENT* (1991).

89. See U.S. EPA, *ENVIRONMENTAL INVESTMENTS: THE COST OF A CLEAN ENVIRONMENT* (1990). A report by the EPA cites pollution control expenditures as percent shares of the U.S.'s total expenditures. In 1987, the U.S. share for air and radiation was 28.9%; water, 42.9%; land, 26%; chemical control, 1.2%. *Id.* at vii.

lic's eye by the clear improvement associated with the attendant environmental improvement.⁹⁰

This paradoxical result has alarmed environmentalists and made them especially critical of official measures of economic performance. For environmentalists, economic well being is not tantamount to total well being,⁹¹ and it is intellectually imperialistic for economists to attempt to conflate the two.

Resistance to economic thinking is primarily responsible for the fascination among environmentalists with the idea of sustain-

90. Environmental clean up and preservation is costly, thereby rendering consumers less likely to want to foot the bill. Consumers want to see the person or group directly responsible for the pollution to pay. Often times, however, consumers actually end up paying for the environmental costs, either directly or through increased market prices. See John C. O'Quinn, *Not-So-Strict Liability: A Foreseeability Test for Rylands v. Fletcher and Other Lessons from Cambridge Water Co. v. Eastern Counties Leather PLC*, 24 HARV. ENVTL. L. REV. 287 (2000); W. Howarth & Simon Ball, *Making Water Polluters or Water Consumers Pay?*, WATER L., Jan. 1994, at 2; Karen Vandekerckhove, *The Polluter Pays Principle in the European Community*, 13 Y.B. EUR. L. 201 (1993); Robert McGee, *Superfund: It's Time for Repeal After a Decade of Failure*, 12 UCLA J. ENVTL. L. & POL'Y 165 (1993); Michael J. Gergen, *The Failed Promise of the "Polluter Pays" Principle: An Economic Analysis of Landowner Liability for Hazardous Waste*, 69 N.Y.U. L. REV. 624 (1994); and Gerry Cross, *Does Only the Careless Polluter Pay? A Fresh Examination of the Nature of Private Nuisance*, 111 L.Q. REV. 445 (1995).

In an effort to place stricter liability standards and demand quicker responses, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The Act includes a provision in which a "potentially responsible party" can be identified and forced to pay for pollution damage. The EPA has severely criticized this provision as overly vague. See also *Redwing Carriers, Inc. v. Saraland Apartments, Ltd.*, 875 F. Supp. 1545 (S.D. Ala. 1995), *aff'd in part and rev'd in part*, 94 F.3d 1489 (11th Cir. 1996) (forcing parties to pay huge amounts for damage they did not incur); *Long Beach Unified Sch. Dist. v. Dorothy B. Goodwin Living Trust*, 32 F.3d 1364, 1366 (9th Cir. 1994) (stating that the court referred to CERCLA as a "black hold that indiscriminately devours all who come near it"); *United States v. Alcan Aluminum Corp.*, 964 F.2d 252 (3d Cir. 1992) (acknowledging the flawed reasoning and implementation of the CERCLA).

91. See ALAN GILPIN, ENVIRONMENTAL ECONOMICS 22-24 (2000). The environmentalists' perception that economic well-being and environmental well-being are not synonymous and are, in fact, inversely related, is manifested in the U-shaped hypothesis. The U-shaped hypothesis states that growth and development initially correspond with escalation in air and water pollution, congestion, and extinction, thereby decaying environmental indices. Nonetheless, anger, fear, and disgust over the deterioration of the environment will trigger social movements to curb the degradation. Therefore, growth and development actually promote environmental regulation.

Gilpin notes important exceptions to the U-shaped hypothesis, including the use of greenhouse gases, radioactive waste, natural resources, water supplies, food supplies, and the preservation of endangered species.

able development.⁹² The starting point for this idea is the recognition that the consumption patterns implied by the uncritical acceptance of economic growth⁹³ as an economic summum bonum are myopic.⁹⁴ Most existing environmental law attempts to

92. See Meyers & Muller, *supra* note 69. The authors are aware of the extensive variations in the definition of sustainable development. In an attempt to categorize these definitions, they group them into headings based on what the proponents of each definition are attempting to sustain. *Id.* at 4-5. These headings include: the sustenance of human progress, lasting human satisfaction, a global thought pattern for economic and environmental issues, economic progress, environmental well-being and cultural patterns. *Id.* at 5-7; See also Lawrence J. MacDonnell, *Thinking About Environmentally Sustainable Development in the American West*, 18 J. LAND RESOURCES & ENVTL. L. 123, 124 (1998). But see Paul Ekins, *The Environmental Sustainability of Economic Processes: A Framework for Analysis*, in TOWARD SUSTAINABLE DEVELOPMENT: CONCEPTS, METHODS, AND POLICY 45-46 (J. van den Bergh & J. van der Straaten eds., 1994). Ekins defines environmental sustainability as the maintenance of environmental functions. This maintenance requirements the fulfillment of several criterion:

1. Destabilization of global environmental features, such as climate patterns or the ozone layer, must be prevented.
2. Important ecosystems and ecological features must be absolutely protected to maintain biological diversity.
3. Renewable resources must be renewed through the maintenance of soil fertility, hydrobiological cycles and necessary vegetative cover. Sustainable harvesting must be rigorously enforced.
4. Depletion of non-renewable resources should seek to balance the maintenance of a minimum life expectancy of the resource with the development of substitutes for it. Once the minimum life expectancy was reached, consumption of the resource would have to be matched by new discoveries of it.
5. Emissions into air, soil and water must not exceed their critical load, that is that capability of the receiving media to dispense, absorb, neutralize and recycle them, nor may they lead to life-damaging concentrations of toxins.

Risks of life-damaging events from human activity must be kept at very low levels. Technologies, such as nuclear power, which threaten long-lasting ecosystem damage at whatever level of risk, should be foregone.

Id.

See also PRUGH, LOCAL POLITICS, *supra* note 7, at 10. The authors advocate a system of global sustainability for both environmental and political reasons. A sustainable environment requires the input and cooperation of the community. This engagement will reinvigorate the public's political participation. This new political system is termed "strong democracy" by political scientist Benjamin Barber. *Id.*

93. DONELLA H. MEADOWS ET AL., BEYOND THE LIMITS (1992). The goal of the market is exponential growth. However, the physical limits of the earth will curb exponential growth. Once depletion is near, the authors see society as having two choices: "involuntary collapse caused by escalating shortages and crises, or controlled reduction of throughput by deliberate social choice." *Id.* at 189. For example, to stabilize the population, all couples would pledge to have no more than two children. *Id.* at 194.

94. See James Salzman, *Symposium on Population Law: Sustainable Consumption and the Law*, 27 ENVTL. L. 1243, 1243 (1997).

reduce the level of pollution.⁹⁵ For example, a statute reducing the level of air pollution may result in factories that are cleaner and producing less pollution per unit of output,⁹⁶ but we are still consuming at a pace that cannot continue⁹⁷ in the absence of radical technological transformations.⁹⁸ Are these criticisms of economics by environmentalists so severe that the two disciplines cannot speak in a fashion that is mutually beneficial? Fogelin's concept of "deep disagreements"⁹⁹ strikes a substantial blow to the promise of rational argumentation. According to Fogelin, some disagreements are unresolvable because they lack the conditions essential to arguing. No matter how unbiased, coherent, consistent, and rigorous two parties engaged in a "deep disagreement" may be, a clashing of underlying principles precludes a resolution of the conflict.¹⁰⁰

95. See GILPIN *supra* note 91, at 200. For the past thirty years, developed countries have been enforcing air pollution control statutes. According to the Global Environmental Monitoring System (GEMS) pollution levels in many of these countries had fallen significantly. Two success stories are the reductions of lead in the North American atmosphere and smoke emissions in Britain. Despite these positive findings, developing countries have few success stories to report. The GEMS findings highlight the paradox between industrialization and pollution. Heightened industrialization often provides the economic wherewithal by which a country can afford to choose to engage in policies that reduces pollution. However, those very same countries are the most fecund producers of the pollution that they then find they wish to clean.

96. See Salzman, *supra* note 94, at 1244. Salzman uses automobiles to illustrate this point.

97. See RIFKIN, *supra* note 85, at 136. Rifkin believes that the term 'consumption' is an inapplicable reference because goods are not actually consumed. Goods are used, but only for a short period. After their usefulness has expired, then the goods are tossed aside. *Id.*

98. *But see* MEADOWS, *supra* note 93, at 179-85. The authors warn that technological advances designed to compensate for resource limitations are not dependable solutions. In fact, a society that holds off its limits by technology will be more likely to expire its resources within a short period of time. *Id.*

99. Robert J. Fogelin, *The Logic of Deep Disagreements*, 7 *INFORMAL LOGIC* 1 (1985). This article is part of a more general debate about incommensurability of discourse. The question arises as to whether certain people are so fundamentally disparate in terms of how they define the issue, how they propose to reconcile their disagreement, and their basic language patterns that there is little point to further discussions between them.

100. See *Bennett v. Spear*, 520 U.S. 154 (1997). Imagine the potential futility of discourse between the feuding parties represented in *Bennett v. Spear*. The plaintiffs in this case included various groups that are typical targets of government agencies enforcing environmental law, such as ranchers, developers, and water districts. These groups sued the government agencies for overenforcement of environmental regulations. *Id.* In a fascinating decision, the Court ruled that these groups, as well as others that had economic interests tied to environmental issues, should be protected from overenforcement of government policy. *See also* Todd William Roles,

Is the disagreement between economists and environmentalists "deep" in this sense? Compelling evidence suggests the answer might be "yes." Henderson argues that economics and what she terms "ecophilosophy" examine the world and its problems in essentially different ways.¹⁰¹ While economists are anthropocentric in their analysis,¹⁰² environmentalists' use of biocentrism focuses on interdependencies among species. Her distinction here is but another way to say that they have inconsistent models of the self.

In another formulation of the difference, Blinder suggests that conflicting conceptualizations of environmental degradation are a fundamental source of tension between economists and environmentalists.¹⁰³ In stark contrast to economists' desire to label such damage as an economic problem, environmentalists think of them as moral transgressions.¹⁰⁴ This difference is far from insignificant because much of the self-image of modern economics is tied to its rejection of the moral domain as within the purview of the discipline.¹⁰⁵

Another illustration of the source of tension between environmentalists and economists is each group's expected results from environmental laws.¹⁰⁶ Santopietro argues that economists

Has the Supreme Court Armed Property Owners in their Fight Against Environmentalists? Bennett v. Spear and Its Effect on Environmental Litigation, 41 ARIZ. L. REV. 227 (1994).

101. See Hazel Henderson, *Paradigms In Progress: Life Beyond Economics* 71, 106 (1991).

102. See generally EDMOND N. CAHN, *THE SENSE OF JUSTICE: AN ANTHROPOCENTRIC VIEW OF LAW* (1949).

103. ALAN BLINDER, *HARD HEADS, SOFT HEARTS: TOUGH-MINDED ECONOMICS FOR A JUST SOCIETY* 138 (1987). Blinder is a distinguished economist, who openly expresses caution about models of rationality that ignore our interrelatedness. He is just one of many economists who do not fall comfortably within mainstream boundaries of economic thinking.

104. See several instances when conservationists articulated our moral obligation to protect the environment: GIFFORD PINCHOT, *THE FIGHT FOR CONSERVATION* 79-88, 133 (1911); HENRY BESTON, *THE OUTERMOST HOUSE* (1992). Franklin D. Roosevelt, *A Debt We Owe*, COUNTRY HOME June 1930, at 12-13; LUTHER STANDING BEAR, *LAND OF THE SPOTTED EAGLE* 193 (1933). "The animal had rights-the right of man's protection, the right to live, the right to multiply, the right to freedom, and the right to man's indebtedness." *Id.*

105. See Amitai, *supra* note 8 for a critique of this moral blindness on the part of the economics profession.

106. Because the disciplines of economics and environmental studies view the environment through different lenses, it is natural for the two to disagree about the desired outcomes of environmental policy. See Resource Assessment Commission, *Methods of Analyzing Development and Conservation Issues, Research paper No. 7*, 20 (1992). Economists are concerned with resource allocation and the efficiency of

suggest using monetary incentives to shape behavior,¹⁰⁷ while environmentalists advocate more aggressive educational campaigns.¹⁰⁸ However, the proffered avenues, monetary incentives and education, clash because economists' and environmentalists' underlying goals for altering behavior conflict. "Economists are concerned only with *compliance*: whether or not the individuals change their behavior in the desired manner."¹⁰⁹ Environmental-

the market. Thus, desired outcomes of environmental legislation for economists are efficient allocation and resource depletion at a sustainable level. These things are achieved either through the market or government regulation. Ecologists' are concerned with the interaction between living organisms – from plants and animals to humans and the environment. Their goals include coexistence and complete preservation. Mechanisms for achieving these goals include educational campaigns aimed heightening awareness of environmental issues. *Id.*

See also Regulatory Reinvention (XL) Pilot Projects, 62 Fed. Reg. 19,872 (Apr. 23, 1997). The Environmental Protection Agency (EPA) instituted regulatory reforms in 1997. The reform, Project XL, placed particular emphasis on "environmental results" as a measure of regulation effectiveness. To evaluate these results a two-tier test was created. In the first tier, the quantitative results of the project being evaluated are compared against numerical estimates of what would have been if the project were not implemented. In the second tier, the quantitative and qualitative results recorded in tier one are evaluated to determine if the project has produced superior enough results. *Id.* at 19,874.

107. *See* W.J. BAUMOL & W.E. OATES, *ECONOMICS, ENVIRONMENTAL POLICY, AND THE QUALITY OF LIFE* 144 (1979).

In our view, the appropriate response to environmental problems is not to bring a complete halt to the expansion of the economy, but rather to build into it a powerful set of incentives to reduce those activities that degrade the environment. With such incentives as a basic part of our economic structure, we do not foresee the inevitable catastrophe envisioned by the neo-Malthusians. Continued growth and the associated increases in standards of living are consistent with improvement in environmental quality, if we adopt the measures needed to induce individual producers and consumers to economize on their use of environmental resources.

Id.

108. *See* George Santopietro, *Raising Environmental Consciousness Versus Creating Economic Incentives as Alternative Policies for Environmental Protection*, 29 J. ECON. ISSUES 517-520 (1995). *See also* Prugh, *Natural Capital*, *supra* note 54, at 106-107. Prugh tries to determine a method for informing people of the long-term consequences of short-term behavior, such as spraying pesticides on food. One mechanism for informing the public is educational campaigns. Such campaigns have been used to educate the public about the consequences of smoking, drinking, and unprotected sex. *Id.*

109. Compliance to laws is a multi-dimensional issue. Groups and individuals can comply with the laws on a superficial level while their behavior undermines the spirit of the law. *See* James C. Scott, *Weapons of the Weak* 30 (1986). Scott's book examines resistance techniques of peasants. Peasants often engage in forms of resistance that bend the law, but do not break it thereby rendering compliance ineffective. The author coined the neologism, "everyday forms of peasant resistance" and defines these forms as the prosaic, but constant struggle between the peasantry and those who seek to extract labor, food, taxes, rents, and interests from them. *Id.* at 30.

See also Neomi Rao, *A Backdoor to Policy Making: The Use of Philosophers by the Supreme Court*, 65 U. CHI. L. REV. 1371, 1378 (1999). The article discusses Na-

ists are seeking conversion: changing the underlying value system that guides behavior."¹¹⁰

This difference on perspective highlights again an implication of the ontological acceptance of the isolated self. To actively change another person's mind represents an invasion of another's personal space, when that space is seen as inviolate; were we to see selves as inextricably entangled, we would see an educational campaign as just one branch of accepted norms of entanglement.

A 1984 meeting of the World Bank further illuminates the depth of the disagreement between economists and environmentalists. Especially designed to find common ground between these two parties, the meeting ended in utter failure. Economists rejected the idea that natural resources can be finite, and environmentalists were unimpressed by the argument that increasing shortages stimulate corrective responses in the economy.

Anyone urging conversation between economists and environmentalists must find such antithetical viewpoints daunting. But such conversations can develop with improved appreciation of the respective messages. Because economists and environmentalists are not monolithic groups¹¹¹ neither can their conflict be. While a "deep disagreement" may be an apt characterization of the viewpoint divergence between *some* economists and *some* environmentalists, it does not hold for *all*. To the extent that many economists and environmentalists do not represent the extremes associated with dogmatism, open conversation between them may be possible.

tive Americans disregard for laws concerning property rights. Both this example and peasant resistance depicts situations of law breaking stemming from a lack of belief in the purpose of the law. This supports the environmentalist contention that a true belief in the spirit of the law is necessary for effective implementation.

110. See Santopietro, *supra* note 108, at 519.

111. Economics is far from a monolithic discipline. Numerous models of analysis characterize its history. See E. K. HUNT, HISTORY OF ECONOMIC THOUGHT (1992). Hunt's book traces various models and schools of thought within economics. These include mercantilism, Protestantism, rationalistic subjectivism, utilitarianism, neo-classicism, liberalism and capitalism. Just as economics is characterized by various schools of thought, so too is environmental movement. See also TERRY L. ANDERSON & DONALD R. LEAL, FREE MARKET ENVIRONMENTALISM (1991). (discussing that those adhering to this school of thought see property rights as defined by natural resources thereby linking all dollar values to the use and conservation of the resources).

Toward that end, Sodenbaum describes the concept of "paradigmatic pluralism."¹¹² According to this concept, [any] scholar in a given discipline "A" should try to obey the following prescriptions:

- be open-minded and respectful to those who refer to perspectives and traditions outside science itself,
- be open-minded and respectful in relation to the traditions of scholars in other disciplines,
- be open-minded and respectful in relation to other schools of thought within discipline A,
- welcome dialogue and fair competition between proponents of various perspectives, and
- understand the subjective and value-laden aspects of knowledge especially in the social sciences.

Although he is not suggesting that they must agree, Sodenbaum implies that economists and environmentalists have a duty to at least consider the other's arguments. Conversation between environmentalists and economists is possible; however, the respective groups must be willing to listen with an ear to the possibility that their respective theories of the self might have merit.

One promising example of interaction between environmentalists and economists along these lines is Meadows, Meadows, and Randers's *Beyond the Limits*, surely one of the most important environmental books of the last decade. The authors had training in both business and environmental issues; thus, they "see the economy and the environment as one system."¹¹³

Jan Tinbergen, Noble Laureate in Economics, commented on the book. "As economists, we must be grateful to these authors for showing us where the present path of human development threatens to exceed the limits, and for illustrating the contributions economics and other disciplines must make to meet the great human challenge of avoiding war, famine, disease, and pollution, and of building an sustainable future."¹¹⁴ This book is just one example of the possibility of conversation between environmentalists and economists. But to the extent that it is a path-

112. Peter Sodenbaum, *Neoclassical and Institutional Approaches to Environmental Economics*, 24 J. ECON. ISSUES 481,482 (1990).

113. DONELLA H. MEADOWS, DENNIS L. MEADOWS, & JORGEN RANDERS, *BEYOND THE LIMITS: CONFRONTING GLOBAL COLLAPSE, ENVISIONING A SUSTAINABLE FUTURE* (1992).

114. *Id.* at xi.

breaker in that respect, the interdependence of species on which the book is premised owes a special debt to the ecological vision.

Economists are much too numerous to speak with a single voice. Hence, even if a person knows nothing at all about economics he could safely assume that *multiple* perspectives emerge in such a huge discipline. In a 1991 issue of *Environmental Ethics*, Bryan Norton's "Thoreau's Insect Analogies: Or Why Environmentalists Hate Mainstream Economists" implies a need to go beyond the potential emptiness of an "economists' versus environmentalists'" stance.¹¹⁵ Norton correctly recognizes, by implication, the heterogeneity of the economics discipline; our argument is that such diversity not only exempts some economists from the aforementioned criticisms but that it also increases the potential for open and productive conversation between at least some environmentalists and some economists. That an environmentalist might have a "deep disagreement" with a mainstream economist does not mean that she or he cannot rationally converse with every single economist.

Examples abound demonstrating that the stereotypical mainstream is not the only river of thought in economics. In support of those within the discipline who criticize their colleagues for making economic well being tantamount to total well being,¹¹⁶ many economists point out the GNP's inadequacy in tabulating environmental degradation.¹¹⁷ Miller,¹¹⁸ for instance, argues that "a country could deplete its petroleum reserves, destroy its forests, and erode its soil. . . before its national accounts even recognized the problem." *The Economist* has been similarly critical: "conventional statistics of economic growth are. . . particularly blind to the environment. . . a country that cut down all its trees,

115. Bryan G. Norton, *Thoreau's Insect Analogies: Or Why Environmentalists Hate Mainstream Economists*, 13 ENVTL. ETHICS 235, 252 (1991).

116. See, e.g., *supra* note 33.

117. See FRANCES CAIRNCROSS, *GREEN INC.* 99-100 (1995). Cairncross recognizes the inadequacy of the GNP measure for it fails to include the costs to society of environmental degradation as well as the benefits of environmental conservation. See also Cole, *supra* note 77, at 126. Cole sees additional problems with the failure to account for environmental degradation. He asserts that the incomplete GNP calculations make conservation efforts appear more expensive than they are. These efforts "impose regulatory costs that are reflected in GNP to ameliorate problems whose costs are not reflected in GNP." *Id.* at 126. See generally *Getting Physical: National Income Accounts do not Properly Value Natural Resources, but Changing that can be Difficult*, THE ECONOMIST Aug. 26, 1989, at 53.

118. John Miller, *The Wrong Shade of Green: Orthodox Economics Put Profits Before Sustainability*, 185 DOLLARS AND SENSE 6-9 (1993).

sold them as wood chips and gambled away the money. . . would appear from its national accounts to have got [sic] richer in terms of GNP"¹¹⁹(quoted in Henderson, 1991).

Not insignificantly, there has been some responsiveness among certain economists to critiques by environmentalists. World Bank economist Herman Daly has developed the Index of Sustainable Economic Welfare, an allegedly environmentally sensitive measure of economic well being that, among other things, accounts for the depletion of non-renewable resources.¹²⁰

Dissident voices within the discipline also are critical of the mainstream's valorization of growth. A past president of the American Economics Association, Kenneth Boulding, asserts that "anyone who believes that exponential growth can go on forever is either a madman or an economist."¹²¹ Miller¹²² makes a similar indictment, stating simply that "continued economic growth, as we know it, is not an option."

Moreover, the mainstream's treatment of externalities has not been spared. Baumol and Oates¹²³ argue that externalities are not aberrations and in fact "are caused by a standard defect in the free enterprise system. . . ." Hunt more than concurs calling externalities "totally pervasive."¹²⁴

Nothing said here denies the existence of a coherent economic mainstream. Neoclassical theory represents economic thinking perhaps more than any single theory in any single discipline outside of the "hard" sciences.¹²⁵ However, the fact remains that when environmentalists criticize economists, they are not disagreeing with the entire discipline and are actually supported by many economists in their critique.

119. Quoted in Daniel C. Esty, *Toward Optimal Environmental Governance*, 74 N.Y.U. L. REV 1495 (1999).

120. LOCKE, *Supra* note 56.

121. JOHN S. DRYZEK, *RATIONAL ECOLOGY: ENVIRONMENT AND POLITICAL ECONOMY*, 73 (1987).

122. Locke, *Supra* note 56.

123. WILLIAM J. BAUMOL & WALLACE E. OATES, *ECONOMICS, ENVIRONMENTAL POLICY, AND THE QUALITY OF LIFE 2* (1979).

124. See Hunt, *supra* note 111, at 485.

125. *Id.* at 422. Hunt notes that "just as the giant corporations tend to dominate the economic, social, and political life of capitalism, the liberal version of neoclassic economics dominates academic economic thinking." *Id.* at 422. Despite this dominance, there are divisions within even the neoclassic school thereby illustrating the multiplicity of economic thought.

IV.

THE ROBUST SELF AND AN IMPROVED
ENVIRONMENTAL LAW

Environmental law is a human institution. As such, humans create and enforce it. Our personal and immediate desires,¹²⁶ while a persistent competitor for our attentions, encourage us to make choices loyal only to the egoistic component of the self.¹²⁷

In that regard, environmental laws that threaten to increase market prices and thereby reduce purchases are resisted by this more solitary component of our being. But the voice of the economist warns environmentalists not to forget this element of the self. While environmentalists may wish to deny the egoistic self,¹²⁸ they do so at the peril of effective environmental legislation.¹²⁹

126. *See Id.* at 28. The 16th century philosopher, Bernard Mandeville, recognized the deep infiltration of self-interests in the then-new capitalist system. Mandeville was the first to articulate the paradox between the "older moral code" and the new economic system. In this new economy, selfishness, greed, and acquisitive behavior added to the growth and prosperity of the economy. Thus, these attributes that were once vices in the moral code could now be beneficial characteristics. *Id.* at 28.

127. *See* Dan Hansen, *Americans fail to walk the walk; Environmental support doesn't mean activism*, SPOKANE REV., Apr. 22, 2000, at B1. The author notes the discontinuity between people's expressed support for the environment and their corresponding action. He cites a Gallup poll in which 83 percent of the 1,004 respondents said they "strongly" or "somewhat" agree with environmentalists' goals. Yet, citizens do little outside of recycling to translate their concern for the loss of natural resources and wildlife into action. Jim Baker, a spokesman for the Sierra Club explains the difficulty environmental groups have convincing people that their consumer habits affect the environment. "Environmental stewardship means a careful introspection in the way you live your life." The fact of the matter is that it is easier to let the egoistic self win out. *Id.*

128. *See e.g.* THOMAS HOBBS, LEVIATHAN (1962). Hobbes would have vehemently disagreed with any assertion that the egoistic self was inescapable. He believed human nature was helplessly permeated by egoism, ambition, competitiveness, and desire for glory in all humankind that made the rule of law an impossibility. The sovereign power making the laws must rise above these aspects of human nature for the rule of law to be implemented effectively. However, Hobbes had little faith that humans were capable of suppressing these odious characteristics. *But see* IMMANUEL KANT, KANT: SELECTIONS 419 (L.W. Beck, ed. 1988). Kant agreed that human nature was far from perfect, but he disagreed that imperfection rendered the rule of law an impossibility. His sentiments are summarized in his famous quote: "From such crooked wood as man is made, nothing perfect straight can be built." Nonetheless, Kant felt our "crooked wood" or egoistic human nature could be largely overcome. *Id.*

129. *See* PHILLIP K. HOWARD, THE DEATH OF COMMON SENSE: HOW LAW IS SUFFOCATING AMERICA 177 (1994). The effectiveness of legislation is often undermined by its unachievable goals or the sheer number of bills governing a certain issue. Howard asks, "What good is law today? We fight off rules like branches hitting us in the face losing any sense of where we are supposed to be going and

But there is our interdependent, ecological self as well.¹³⁰ Like his more rapacious cousin, the solitary self, this component of who we are also demands attention and respect. The mediation between these selves requires us to be in Mark Johnson's words, "creatures-in-process" whose identities are linked to our social relations and historical contingencies.¹³¹ Our reaction to environmental laws, proposed and extant, is just one of the ways in which we reconstruct ourselves based on our individual aspirations.

The strongest evidence for the existence of these dual selves is derived from our own introspection. We know that when we want something in the marketplace, we generally want to make the purchase because it fulfills some inclination we have at a very superficial, yet commanding level.¹³² Markets exist to provide

bleeding from illogical dictates that serve no one's purpose." *Id.* But see David B. Spence & Lekha Gopalakrishnan, 53 VAND. L. REV. 599, 601 (2000). The authors feel Howard has incorrectly attributed the identified problems to law when in fact the genesis of regulatory trouble is politics. *Id.* at 601. Supporters of the idea that the policy-making process produces inefficient regulation include public administrators, scholars, and some legal scholars. Economists support the more traditional view that regulations themselves are inefficient. *Id.* at 604. The stance of economists is illustrated by their critique of pollution regulations. Economists believe that environmental regulations actually act as barriers to effective legislation. *Id.* at 600. Specifically, economists criticize the "command-and-control" regulation that specifies how firms should meet environmental mandates. This specificity, economists reason, makes pollution control and other environmental reforms unnecessarily expensive and less effective. *Id.* at 604. How does regulation undermine its own goals? Economists argue that if firms were left alone they would develop "less costly control technologies. Additionally, firms can gain financially and contribute to environmental well being by engaging in trade, which may be thwarted by regulations. *Id.* at 606.

130. See RALPH WALDO EMERSON, NATURE: ADDRESSES AND LECTURES, 86-87 (1884). Emerson believes that "the first in importance of the influences upon the mind is that of nature." *Id.* at 86. A true scholar is one that engages with nature, determines what nature means to him or her, and appreciates its value.

131. MARK JOHNSON, MORAL IMAGINATION: IMPLICATIONS OF COGNITIVE SCIENCE FOR ETHICS, 33 (1993). The author provides a guide to the ethical implications of a contextualized self, one who uses reason to negotiate between the competing claims of personal identity.

132. See e.g. Jeanne L. Schroeder, *The End of the Market: A Psychoanalysis of Law and Economics*, 112 HARV. L. REV. 483, 492 (1998). Schroeder contends that because the market is driven by desire – in the technical not colloquial sense – then it is essentially erotic. *Id.* at 492. The author goes on to say that the desire is not what economists generally assume it be, that is a desire for material things. Rather, the desire that drives the market is actually a deeper want of recognition by others. Therefore, "we desire things derivatively as a means of achieving our true desire – the desire of the Other." *Id.* at 495. Schroeder explores the issue of the extent to which eroticism and desire drive market activity in other articles. See also Jeanne L. Schroeder, *Chix Nix Bundle-O-Stix: A Feminist Critique of the Disaggregation of*

these satisfactions within the parameters of what Walzer calls "blocked exchanges."¹³³ This self is the environmentalists' foe, a decision maker with low regard for communitarian appeals, an epimethean thinker living in the present.¹³⁴

But even the most cursory consideration of our decisions makes us aware that we are also capable of considering the welfare of others in conjunction with the requests from the isolated self. None of us would tell the lost child in the mall that we are too busy to be bothered. Every year some of us who can barely swim, dive into swollen rivers to rescue people in trouble. While it would be possible to see such actions as reflective of just another form of egoism, something special is happening in these moments. We are reaching out to the vulnerable because they are part of our group.

Environmentalists urge us to extend the boundaries of our caring beyond the human species, to a more general respect for life in all its forms.¹³⁵ Cass Sunstein offers hope that our evolving selves can indeed move in that direction.¹³⁶ He documents the different valuations consumers place on a resource in the market-

Property, 93 MICH. L. REV. 239 (1994); Jeanne L. Schroeder, *Juno Moneta: On the Erotics of the Marketplace*, 54 WASH. & LEE L. REV. 995 (1994); and Jeanne L. Schroeder, *The Vestal and the Fasces: Property and the Feminine in Law and Psychoanalysis*, 16 CARDOZA L. REV. 805 (1995).

133. MICHAEL WALZER, SPHERES OF JUSTICE (1993)

134. See GARRETT HARDIN, PROMETHEAN ETHICS (1990) (discussing the ethical implications of myopia and long-range thinking). The attempts by Prometheus to warn his younger brother of the devastating consequences of his violation of the gods' decree are akin to the environmentalists' warnings that we cannot long continue consumption at an unthinking pace. In another of his books, *Filters Against Follies*, Garrett Hardin argues that there are three primary skills central to reflection: literacy, numeracy, and ecolacy. The last of these skills is identical to what he later called, "Promethean thinking". Ecolacy requires us to follow every choice with serious contemplation of "And then what?". Consequences can, of course, be personal, but the ecology question requires us to wonder as well about the consequences for others.

135. See HENRY DAVID THOREAU, THE MAINE WOODS 163-164 (1893).

[T]he pine is no more lumber than man is, and to be made into boards and houses is no more its true and highest use than the truest use of a man is to cut down and made into manure. There is a higher law affecting our relation to pines as well as to men. A pine cut down, a dead pine, is no more a pine than a dead human carcass is a man. Every creature is better alive than dead, men and moose and pine-trees, and he who understands it aright will rather preserve its life than destroy it.

Id.

136. See Cass R. Sunstein, *Which Risks First?* U. CHI. LEGAL F. 101,109 (1997). Sunstein notes an important distinction between what consumers are willing to pay as individuals and what they are willing to pay as part of a group trying to prevent harm. *Id.*

place and those they assign when they make political judgments.¹³⁷ In the first instance the solitary self indicates personal appraisals. But when we enter the community arena, we appear to be capable of and willing to make decisions that focus on an entity beyond the immediate self.¹³⁸ If Sunstein is correct, environmentalists have some raw material on which to build. Part of our decision making process is looking out for the entire village.¹³⁹

In meeting that goal there is little place for reflexive detestation of markets. When the Great Depression devastated families and communities, a vigorous marketplace working in consort with its governmental partner provided collective sustenance. Market incentives and penalties are also a powerful potential ally of environmentalists.¹⁴⁰

Similarly, contemporary economic growth has the potential to help provide the means for constructing schools, daycare centers, and bridges as well as giving aid to the disadvantaged and any number of other legitimate causes, including the funding of environmental protection.¹⁴¹ Economically developing nations have

137. Sunstein, *supra* note 136, at 110. In market transactions, people look to their individual desires and resources for motivation. In the democratic arena, however, people recognize that they are part of a group that has different considerations and resources from those possessed at the individual level. *Id.*

138. *Id.* at 108. Sunstein also points out the flaws in studies calculating people's "willingness to pay." Empirical evidence for the assertion that citizens are not willing to pay for risk prevention often comes in the form of questionnaires. These results cannot be trusted, according to Sunstein, for "people have a difficult time assigning hypothetical dollar values to bundles of commodities they virtually never confront in everyday experience." *Id.* Additionally, as stated above, these valuations ignore the crucial distinction between what people are willing to pay on an individual level and what they might be willing to forgo on a collective level. *Id.* at 109.

139. *Id.* at 103. Sunstein also advocates the inclusion of the entire village in making environmental regulation. He believes that environmental problems are often viewed and addressed in pieces rather than examining how the problem affects a variety of other environmental and social issues. Sunstein tacitly asserts that more effective legislation could be produced if "selective attention" to issues were replaced by full attention. *Id.*

140. See Baumol & Oates, *supra* note 107, at 255. The authors conclude that while market incentives do have limitations in effectiveness, they "can be a powerful inducement for reduction of environmental damage." See also Clark & Downes, *supra* note 44; Spaulding III, *supra* note 46; Dunec, *supra* note 48; Bolger, *supra* note 50; and Santopietro, *supra* note 108.

141. See Kirsten Hoffman, *Waterfront Redevelopment as an Urban Revitalization Tool: Boston's Waterfront Redevelopment Plan*, 23 HARV. ENVTL. L. REV. 471 (1999). Facing complications from the suburban migration, Boston redeveloped its urban waterfront for the purposes of bringing people, commerce, and investment back to the cities. Environmentalists in the area were originally skeptical about the

choices much more stark than even we do concerning the environment. While we might have to decide if we should save the spotted owl and force many loggers to rely on elements of our social safety net such as unemployment insurance,¹⁴² poor nations often have to choose between the preservation of themselves (i.e. eating) and the preservation of nature.¹⁴³ Thus economic growth and environmental justice need not be mutually exclusive.

plan for they feared that public access to the water's edge would be restricted. *Id.* at 476. Additionally, environmentalists feared an increase in water pollution as a result of the increased traffic. The developers assured skeptics that not only would public access to the waterways not be restricted, it would be increased. Additionally, the increased waterfront activity spurred calls for enhanced pollution control and clean-up efforts. This development plan can also help Boston's economy through the "production of jobs, the provision of affordable housing, and an increased tax base that will support more and better city services and institutions." *Id.* at 473. *See also* Hale E. Sheppard, *Native Forest Protection in Chile: The Inadequacies of the Recent Environmental Framework Law and Relevant Multilateral Instruments*, 14 J. ENVTL. L. & LITIG. 225 (1999). Many environmental laws are aimed at preservation. To achieve preservation of a natural resource, economic exploitation must be prohibited. Thus, economists, businesspersons, and even politicians resist preservation efforts. A less extreme version of environmental protection is conservation, which "does not discard the economic use of the ecosystem, intending instead to rationalize the use in order to assure the future availability of a determined resource. *Id.* at 227.

Environmentalists in Chile have incorporated the goals of conservationists' to develop a policy for maintaining the forests while allowing for continued economic growth. This policy, called Sustainable Forest Development strives to link conservation to a thriving economy, enhanced social equality, and environmental protection. *Id.* at 227.

142. *See* Brent Foster, *The Failure of Watershed Analysis Under the Northwest Forest Plan: A Case Study of the Gifford Pinchot National Forest*, 5 HASTINGS W. - N.W.J. ENV. L. & POL'Y 337 (1999).

143. For articles concerned with environmental regulations within developing countries, *See* William L. Andreen, *Environmental Law and International Assistance: The Challenge of Strengthening Environmental Law in the Developing World*, 25 COLUM. J. ENVTL. L. 17 (2000); Benjamin J. Richardson, *Environmental Law in Postcolonial Societies: Straddling the Local-Global Institutional Spectrum*, 11 COLO. J. INT'L ENVTL. L. & POL'Y 1 (2000); Mark Ritchie, *Agricultural Trade Symposium: WTO Food and Agricultural Rules: Sustainable Agriculture and Human Right to Food*, 9 MINN. J. GLOBAL TRADE 9 (2000); Shashank Upadhye, *The International Watercourse: An Exploitable Resource for the Developing Nation Under International Law?*, 8 CARDOZO J. INT'L & COMP. L. 61 (2000); Mark Baker, *Privatization in the Developing World: Panacea for Economic Ills of the Third World or Prescription Overused*, 18 N.Y.L. SCH. J. INT'L & COMP. L. 233 (1999); J. Oloka-Onyango, *Heretical Reflections on the Right to Self-Determination: Prospects and Problems for a Democratic Global Future in the New Millennium*, 15 AM. U. INT'L REV. 151 (1999); William Ratliff, *Development and Civil Society in Latin American and Asia*, 565 ANNALS 91 (1999); T.S. Twibell, *Ethiopian Constitutional Law: The Structure of the Ethiopian Government and the New Constitution's Ability to Overcome Ethiopia's Problems*, 21 LOY. L.A. INT'L & COMP. L.J. 399 (1999).

Another lesson that environmentalists can gather from economists, even when the economists themselves seem to forget their own teachings, is the varied nature of markets. When we talk about markets, it is important to consider the type of market about which we are speaking. As we have argued above about economic growth, markets are neither inherently good nor inherently bad. Instead, a market's goodness or badness depends on the purposes that it serves.

Not only do markets not have a moral essence, they also do not exist apart from our designs. In the minds of many contemporary thinkers, Adam Smith's "invisible hand"¹⁴⁴ is withering or, at the very least, its strings are now in plain view. We are beginning to recognize more and more that markets do not just arrive from nowhere, but instead we play an instrumental role in their design. Such an idea is empowering. When we legislatively decide the structure of a market, its goodness or badness, its justice or unjustness, is a human choice.

Indeed, we have already witnessed the beneficial role that market incentives can play in improving the environment. Deposits on bottles and cans in Michigan and other states have dramatically improved recycling efforts.¹⁴⁵ Also, tax breaks to landowners for wildlife preservation have afforded many species the freedom to flourish in their natural environment.

In conclusion, environmentalists and economists working together can build a stronger corpus of environmental legislation.¹⁴⁶ Working together need not mean agreeing with one

144. See generally HUNT, *supra* note 111, at 37. The invisible hand theory was created to explain why seemingly conflicting behaviors did not result in conflicts. Smith recognized that individuals generally act with self-interest and wish to enhance the interests of their social class, but he also believed that these behaviors did not result in social unrest because an invisible hand, created by natural law, guided the behaviors into a peaceful harmony. *Id.*

145. See Baumol & Oates, *supra* note 107, at 268. The authors note the astonishing success of Oregon's 1971 "Bottle Bill" in which deposits are received for turning in carbonated beverage containers. Before the bill, 36 percent of beer bottles and 53 percent of soft drink bottles were being recycled. Two years after passage, those percentages increased to 96 and 91 percent respectively. *Id.* at 269.

146. See PHILLIP SHABECOFF, *EARTH RISING* (2000). Shabecoff encourages environmentalists to reconsider their attitude toward economics. An environmental platform that promises to generate jobs while protecting ecological values will receive more public and political support. *But see* PETER HUBER, *HARD GREEN* (2000). While Shabecoff realistically attempts to mollify the concerns of both environmentalists and economists by finding a middle ground, Huber simply declares that the only answer to environmental problems is the unregulated market. This solution, regardless of its possible effectiveness, is unfeasible due to the growth of environmental law and legislation.

another. But both groups speak for a legitimate component of the human spirit. Denial that the self is complex, one part self-oriented and another part social, creates vituperative exchanges. While there is certainly nothing inappropriate about strong commitment to a perspective, that commitment should not serve as earplugs, precluding the recognition of legitimate forces that stand ready to support or resist environmental objectives.

The evolution of the self in developmentally sound directions is propelled more by acceptance and accommodation of our dual nature than it is by berating those who give voice to that part of the self that we wish would disappear.