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OUR PLACE IN THE WORLD: A NEW RELATIONSHIP FOR ENVIRONMENTAL ETHICS AND LAW

JEDEDIAH PURDY†

ABSTRACT

Forty years ago, at the birth of environmental law, both legal and philosophical luminaries assumed that the new field would be closely connected with environmental ethics. Instead, the two grew dramatically apart. This Article diagnoses that divorce and proposes a rapprochement. Environmental law has always grown through changes in public values; for this and other reasons, it cannot do so without ethics. Law and ethics are most relevant to each other when there are large open questions in environmental politics: lawmakers act only when some ethical clarity arises; but law can itself assist in that ethical development. This process is true now in a set of emerging issues: the law of food systems, animal rights, and climate change. This Article draws on philosophy, history, and psychology to develop an account of the ethical changes that might emerge from each of these issues, and proposes legal reforms to foster that ethical development.

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INTRODUCTION

Toward the end of his 1971 book *A Theory of Justice*, John Rawls turns briefly to the topic of “right conduct in regard to animals and the rest of nature.”¹ His remarks are not part of the book’s general argument about “fair terms of social cooperation,”² which launched decades of philosophical debate about distributive justice and the basis of legitimacy for liberal government. Rather, the

1. JOHN RAWLS, *A THEORY OF JUSTICE* 512 (1971).

2. *Id.* at 21.

discussion of nature is an instance of important moral questions that fall, Rawls says, outside the scope of justice.³ That is, these are questions that cannot find their answer in reflection on how a society of equals should arrange its institutions to respect the freedom and moral standing of each member. The question of nature is about something else.

What is that something else? Rawls asserted that “[a] correct conception of our relations to animals and to nature” would depend on “metaphysics,” which he defined as “a theory of the natural order and our place in it.”⁴ A towering figure in political philosophy, Rawls had a gift for seeing the heart of an issue. Yet his claim that environmental ethics needs metaphysics may seem surprising. In the decades since Rawls wrote, public discussion of environmental issues has tended away from high philosophy toward “practicality”: low-built ideas, with an emphasis on weighing costs and benefits and incrementally reforming familiar institutions like markets. The same has been true of the academic discussions most closely aligned with policymaking, notably in law schools. Professional philosophers have attempted some of the metaphysical investigations that Rawls recommended, but their arguments have had all the concrete impact of a tumbling butterfly’s wing.⁵

So, was Rawls wrong? No, but the question is also more complicated than a simple right-or-wrong answer can capture. Much as philosophy may aim at timeless truth, it often succeeds best at distilling the unspoken premises of exactly its time and place. In his aside about the natural world, Rawls did just that. His assertion would have seemed plausible, if not self-evident, in Congress and on the opinion pages of major newspapers, and in both philosophy departments and law schools. It would also have resonated in the nascent environmental movement. In all these places, conversations about nature circa 1971 supposed that Americans were changing their ideas of the planet and their place on it.⁶ It was ordinary to expect a new, “ecological” view of the human role in the world, with large, if unspecified, practical implications.

The decades following the publication of Rawls’s *Theory of Justice* saw a parting of ways between ethics and more concrete fields

3. *See id.* at 512.

4. *Id.*

5. *See infra* Part II.A–B.

6. *See infra* Part I.

such as politics and law. Environmental philosophers moved boldly into the questions that Rawls envisioned: what kind of value the natural world presents and how humans should approach it. At the same time, official decisionmaking pivoted more and more on cost-benefit calculations, which steadily try to avoid metaphysicians' vast and ultimate questions. Normative work in environmental law and policy followed, revolving increasingly around the use and limits of cost-benefit analysis (CBA).⁷ After joining in early calls for an ambitious ethical agenda,⁸ environmental lawyers, and others with their feet on the ground, largely ignored the questions that philosophers were pursuing.

Refocusing on normative questions might seem to suggest that Rawls was wrong about metaphysics, and even that environmental ethics is pretty much irrelevant to practical environmental decisions. But the lesson of these changes is not that environmental law has been without an ethical stance. CBA is not just a practical tool of policy but also a version of an ethical theory, welfarism, which is itself a version of one of the major schools of ethics, consequentialism.⁹ The question is not how environmental law and policy got free of ethics, but how they got so heavily invested in one mode of ethics, to the exclusion of the rest.

Part of the answer is that, just as Rawls's call for high philosophy seemed obviously right in 1971, CBA seemed inescapable by the mid-1980s. In both cases, the theoretical approach distilled the attitudes of the time. As new environmental legislation dried up and environmental law became embedded in administrative agencies, a new set of questions presented itself to decisionmakers. Unlike in the heady period of new legislation that ran from roughly 1970 through 1977, the pressing questions no longer involved choosing governing values, but instead required balancing established goals that sometimes competed with one another.¹⁰ CBA is especially suited to

7. See *infra* Part II.B.

8. See *infra* Part I.

9. Consequentialism holds that acts and policies are good or bad by virtue of their consequences. Welfarism takes well-being as the consequence that is relevant for ethical assessment. In the version of welfarism that CBA represents, consequences are assessed by the total social wealth produced under alternative policies, measured by various techniques for attaching prices to valued and disvalued outcomes.

10. For a particularly sophisticated and antitotalizing consequentialist argument developed explicitly from within the state of post-1970s environmental law, see generally DANIEL A. FARBER, *ECO-PRACTICISM* (1999), which argues that CBA is, at once, an indispensable tool

this kind of decision, and soon both administrators and scholars were engaged in versions of it.

CBA also aspires to neutrality. The idea of getting the best bottom line of social benefit seems to sidestep clashing values. Of course, neutrality is not really possible because someone must decide what counts as a benefit and at what rate. CBA thus obscures conflict over basic values even as it tries to bring all parties to agreement on a common calculus. In the twentieth century, this common calculus has been a major source of its appeal. As mentioned a bit earlier, the late 1960s and early 1970s brought a peculiar cultural moment, when many people saw “environmental values” as both radical on the one hand and, on the other hand, self-evidently important, even objects of consensus. This moment of consensus soon gave way to renewed conflict over nature’s value and our place in it, which marked the 1970s and 1980s. This conflict motivated the search for neutral standards in administering environmental law. Political conflict also blocked passage of new laws. Because legislation involves explicitly choosing values, and administration does not, the decline of Congressional lawmaking submerged basic values as much as the earlier spate of legislation had elevated them.

While environmental law and policy turned away from far-reaching ethical speculation, philosophers were producing “theor[ies] of the natural world and our place in it.”¹¹ These inquiries proved dramatically unhelpful in addressing practical problems. They tended to generate philosophical dilemmas that, if taken seriously, would all but disable decisionmaking.¹² Because ethics, so formulated, was little help to decisionmakers, these developments invited the thought that law not only could get by without ethics, but had to, because it would

and a necessarily incomplete one, incapable of generating a comprehensive science of social assessment and decision.

11. For a discussion of the efflorescence of theories of value in environmental ethics, see *infra* Part II.A.

12. A classic instance is the conflict between holism and individualism as theories of environmental value. Holism embraces whole ecosystems, indeed, life itself, as the locus of value, but cannot account for the value of species or the suffering of individual animals. Individualism, concentrating on the experience of individual animals, cannot give a coherent account of the value of ecosystems. Thus, each attempt at a systematic philosophical account excludes much of the value that actually informs policy. For a discussion of this difficulty, see *infra* Part II.A.

not get usable guidance from philosophers. Ethics had ascended to a metaphysics that law could not use.¹³

Where does this parting of ways leave us? This Article argues that there is no necessary or essential disconnect between environmental law and environmental ethics. Rather, the relationship between the two has been deeply shaped by the changing context of events, and that change continues. Reviewing the history of environmental law and ethics from the 1970s forward shows that the relation between the fields is always partly a response to the constellation of the moment: it reflects what events have made obvious or unthinkable, urgent or trivial, up for grabs or closed to change. The near divorce of environmental law from ethics in the last few decades did not disclose a timeless truth but concentrated the movement from a time of political and cultural openness and dynamism to one of increasingly entrenched conflict across well-defined divisions. Part I sets out in greater detail how the events of the 1970s helped to inspire an ambitious vision of collaboration among legal scholars, lawmakers, and environmental philosophers. Part II then traces the decline of that ambition. Part II.A concentrates on the history of ideas, describing the directions that environmental philosophy took after the early 1970s and arguing that it failed to produce insights useful to lawmakers, in part because philosophers embraced an overly ambitious search for a general theory of environmental value. Part II.B focuses on the development of policy and legal scholarship, which turned increasingly from philosophical theories of value to CBA and theoretical issues surrounding it. This subpart argues that this change was partly responsive to a new political and institutional constellation: the questions presented to decisionmakers in a time of entrenched conflict and scant openness to new basic values were ones that played to CBA's strengths as a technical and ostensibly neutral method of tabulating established values.

Parts III and IV argue that, today, there is a chance for environmental law and ethics to develop a newly productive

13. See, e.g., Bryan Norton, *Which Morals Matter? Freeing Moral Reasoning from Ideology*, 37 U.C. DAVIS L. REV. 81, 82 (2003) (explaining that metaphysical questions are effectively irresolvable and, in recent decades, have distracted attention from opportunities to deal with more tractable issues in a pluralist and pragmatic way). *But see* Christopher Stone, *Do Morals Matter? The Influence of Ethics on Courts and Congress in Shaping U.S. Environmental Policies*, 37 U.C. DAVIS L. REV. 13, 49 (2003) (arguing that environmental ethics should redouble its efforts to achieve a coherent view of basic issues in value theory).

relationship. Parts III.A and III.B argue that changing values have played a central role throughout the long history of U.S. lawmaking with respect to the natural world. An approach to ethics that could engage this long-term and continuing dynamism would forgo the ambition to craft general theories of environmental value in favor of a more responsive, pragmatic, and bottom-up approach in which environmental philosophy would both take cues from the changing currents of politics and culture and offer new formulations back to those tracts of the larger culture. Part III.C offers tools for this approach to ethics. It sets out four issues, at once practical and philosophical, that have structured major episodes of environmental value shaping and still do so today: social ethics, the question of how to live among others and in political communities; personal ethics, the problem of one's own identity and basic commitments; aesthetics, the response to the world's beauty, sublimity, and uncanniness; and virtue ethics, the matter of shaping one's character through practice to live a good life—in this case, especially in regard to nature.

Part IV turns to the law side of the law-and-ethics relationship. It concentrates on a new set of practical issues that are gathering energy around them and have the potential to be crucibles of ethical development. These issues are agriculture and food systems, the ethical status of animals, and climate change. Law and policy will be able to address these problems only by reference to values that have still to be worked out.¹⁴ Formulating these values and finding ways of committing ourselves to them will mean engaging “theor[ies] of nature and our place in it.”¹⁵ This Part examines the potential for ethical development contained in each issue area, using the tools presented in Part III to organize the discussion.

I. AT THE OPENING OF AN ECOLOGICAL ERA

A touchstone piece of early environmental-law scholarship exemplifies the openness and dynamism of the law-and-ethics relationship in the early 1970s. Professor Laurence Tribe's 1974 article on “Ways Not To Think About Plastic Trees,” is a classic

14. See, e.g., Holly Doremus, *Constitutive Law and Environmental Policy*, 22 STAN. ENVTL. L.J. 295, 297 (2003) (discussing the unavoidable feedback effects among legal goals, policy instruments, and personal and social values, and the need to keep all of these in view at once).

15. RAWLS, *supra* note 1, at 512.

meditation at the intersection of environmental law and ethics.¹⁶ It also has an exotic savor today. Writing in the *Yale Law Journal*, Tribe took on the “metaphysical” themes that Rawls had called for three years earlier. He asked how law should conceive of the value of nature and gave an answer that was no less than a theory of the natural world and the human place in it.

Tribe argued that CBA distorted some of the most important values relevant to environmental policy. His title conjured up a question that he thought captured the difficulty: if, in some (maybe not so distant) future time, plastic trees pleased human viewers just as much as natural ones, could CBA distinguish between living wood and dead plastic?¹⁷ If not, what does that reveal about the technique?¹⁸

Tribe argued that, if people were just as happy with plastic trees, CBA was committed to honoring that taste.¹⁹ This commitment, he argued, shows something basic about CBA: it treats human satisfactions as the only consideration relevant to environmental decisions.²⁰ But, according to Tribe, people often entered into environmental debate because they believed that some place, species, or system deserved care or respect for its own sake.²¹ Expressing the value of the natural entity in terms of one’s own satisfaction—as in, “I would be happier if we didn’t pollute the river”—distorted this ethical motivation. Using the language of CBA turned “obligation into self-interest.”²²

Tribe urged lawmakers to recognize “rights” for natural entities, especially the procedural right of standing, the power to bring a legal

16. Laurence H. Tribe, *Ways Not To Think About Plastic Trees: New Foundations for Environmental Law*, 83 *YALE L.J.* 1315 (1974).

17. *See id.* at 1315–17 (“While it might appear initially that nature surrogates would be antithetical to the ecological concern embodied in present environmental legislation and policy, a closer analysis leads to precisely the opposite conclusion. The perpetually green lawn and the plastic tree . . . are expressions of a view of nature fully consistent with the basic assumptions of present environmental policy. These assumptions . . . make all environmental judgment turn on calculations of how well human wants, discounted over time, are satisfied.”).

18. *See id.* (“[N]ature surrogates’ provide an illuminating metaphor through which to expose and criticize certain premises which underlie most current discussions of environmental thought, law, and policy.”).

19. *Id.* at 1326.

20. *See id.* at 1326, 1328–30.

21. *See id.* at 1329–31 (“To offer a simple illustration, suppose a person feels an obligation to protect a wilderness area from strip mining. The initial perception of that obligation is likely to take the form of sympathy for the wildlife and vegetation which would be destroyed or displaced.”).

22. *Id.* at 1331.

action under one's own name.²³ As a practical matter, this grant of standing would mean that advocacy groups could bring suit in the name of a threatened species or waterway, rather than find some person affected by the problem who could qualify as a plaintiff. The difference might seem small, but for Tribe the stakes lay in human consciousness: "We should be capable of perceiving intrinsic significance—sanctity, if you will—in the very principles . . . according to which we orchestrate our relationships with . . . the physical world of which we are a part."²⁴ Legal and moral concepts such as rights assumed that rights holders mattered, regardless of whether their existence satisfied any human preferences. Enforcing rights for natural things would therefore spur moral reflection on the importance of those things: by recognizing rights in nature, law could keep the mind open to the value of nature.²⁵

Tribe thought this point especially urgent because of a theory of human freedom. We are always taking two very different attitudes toward value at the same time. On the one hand, we *decide* what we value: we make choices and commitments.²⁶ We vote, pass laws, and adopt and amend constitutions. On the other hand, we do not believe these choices are arbitrary: we *acknowledge* value, in other people, institutions, and nature, and our choices are part of this acknowledgement.²⁷ If we had no choice, we wouldn't be free; but if we ever "just decided," we would no longer be acknowledging value.²⁸ Tribe argued that CBA treats our valuing of nature as "just deciding," and that treating nature as having rights or standing would keep alive both sides of the relationship—acknowledging and choosing, in a reciprocal dance.²⁹ In this way, free human beings could identify,

23. *See id.* at 1340–43.

24. *Id.* at 1339.

25. *See id.* at 1340–46 (describing "the concept of rights for natural objects" as "a plausible . . . first turn along the spiral of process through which we might grope toward an evolving environmental ethic").

26. *See id.* at 1326–27 ("To be free is to choose what we shall want, what we shall value, and therefore what we shall be.").

27. *See id.* at 1327 ("But . . . we must [also] . . . choose in terms of commitments we have made to bodies of principle which we perceive as external to our choices and by which we feel bound . . .").

28. The language of "acknowledging" and "deciding" is mine, not Tribe's, although it tracks his argument precisely and, I think, in somewhat clearer fashion than his formulations.

29. *See id.* at 1338–45 ("If transcendence degenerates ultimately into choice without commitment to principle and if immanence ultimately disintegrates into principles incapable of change, what must be sought is a synthesis of immanence with transcendence—of sacred observer with grand manipulator." (citation omitted)).

adopt, and revise ways of respecting a morally valuable world.³⁰ He thus did not insist that it is true in some hard-to-specify sense that “trees have rights,” or argue that natural entities have enough of the characteristics that rights protect in people (interests, self-awareness, capacity to plan) that they “objectively” deserve rights. Instead, the key thing is that people feel that nature matters, and act on this conviction.³¹

Tribe’s argument, a founding classic in the field, comports beautifully with what Rawls had recently proposed. Tribe’s argument was higher flown than the more lawyerly concerns of many other environmental-law scholars, but his concerns were hardly alien to the field. In another landmark argument, Professor Christopher Stone proposed that natural entities should have standing (via court-recognized trustees), less for “legal-operational”³² reasons than because it might contribute to “a radical new theory or myth—felt as well as intellectualized—of man’s relationships to the rest of nature,” in which “we may come to regard the Earth . . . as one organism, of which Mankind is a functional part.”³³ That is more or less Tribe’s proposal. Lynton Caldwell, the policy scientist whose proposal for a national environmental-planning regime formed the basis of the National Environmental Policy Act (NEPA),³⁴ presented the stakes of this preeminently formal statute in similar terms. He argued in 1970 that “two major ways of looking at the world have characterized man’s attitude . . . ; the first may be termed *economic*, the second *ecological*.”³⁵ The first he described as embracing a simple ethic: “to

30. *See id.* (“If the evolving processes we adopt are somehow to synthesize the ideals of immanence with those of transcendence, it follows also that those processes must embody a sense of reverence for whatever stands beyond human manipulation and its willed consequences, as well as a stance of criticism toward all that is given and a commitment to the conscious improvement of the world.”).

31. *Id.* at 1345–46.

32. Christopher Stone, *Should Trees Have Standing?: Toward Legal Rights for Natural Objects*, 45 S. CAL. L. REV. 450, 480 (1972). Professor Holly Doremus also picks out Professor Stone’s article as an emblem of a moment of plasticity in environmental values. *See* Holly Doremus, *Environmental Ethics and Environmental Law: Harmony, Dissonance, Cacophony, or Irrelevance?*, 37 U.C. DAVIS L. REV. 1, 1–7 (2003) (identifying Professor Stone’s article as a “classic” that “articulated a number of important insights” as to why nature may have a “claim to ethical consideration”).

33. Stone, *supra* note 32, at 498–99.

34. National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321–4347 (2006 & Supp. IV 2011)).

35. LYNTON KEITH CALDWELL, ENVIRONMENT: A CHALLENGE FOR MODERN SOCIETY 237 (1970).

make nature serve man's material needs."³⁶ Ecology, by contrast, adjusted human purposes and values in recognition of the continuity and interdependence of life.³⁷ As Caldwell envisioned it, NEPA would help to put an ecological way of thinking at the heart of U.S. law.³⁸ This aspiration is particularly striking today, when NEPA is regarded as an almost entirely procedural law, which requires federal agencies to produce lengthy reports before undertaking major decisions, but imposes no particular values on those choices.³⁹

As mentioned in the Introduction, proposals like these found support from all directions: the courts, allied academic fields, national politics, media, and social movements. Take the seminal environmental-standing case, *Sierra Club v. Morton*.⁴⁰ Here, the Supreme Court considered whether the Sierra Club could sue to oppose development in California's Mineral King Valley, and ruled that the group had standing to appear in court only if at least one of its members used the disputed area and would be affected by the proposed development.⁴¹ The case is most famous, though, for Justice Douglas's animist-toned dissent, which adopted the language and spirit of proposals to recognize natural entities as legal actors: "The river as plaintiff speaks for the ecological unit of life that is part of it. . . . The voice of the inanimate object, therefore, should not be stilled."⁴² Less well remembered, because less colorful, is Justice Harry Blackmun's dissent, which called for "an imaginative expansion of our traditional concepts of standing" in light of the urgency of environmental problems and the "sincere, dedicated, and established status" of the Sierra Club with respect to conservation.⁴³ Justice Blackmun argued for granting more or less automatic standing to groups such as the Sierra Club because, as several federal appeals

36. *Id.*

37. *See id.* at 238 ("[T]he ecological viewpoint might be described in these terms: Man is a part of his own environment and is in dynamic equilibrium with it; this total environment exists in dynamic equilibrium governed by natural 'laws' . . .").

38. *See id.* at 212–13 (implying that NEPA represents the institutionalization of social concern for the environment).

39. *See* Mark Squillace & Alexander Hood, *NEPA, Climate Change, and Public Lands Decision Making*, 42 ENVTL. L. 469, 475 (2012) ("[T]he U.S. Supreme Court has made clear that NEPA's [environmental impact statement] requirement is procedural and not substantive . . .").

40. *Sierra Club v. Morton*, 405 U.S. 727 (1972).

41. *Id.* at 728–32 (plurality opinion).

42. *Id.* at 743, 749 (Douglas, J., dissenting).

43. *Id.* at 757–58 (Blackmun, J., dissenting).

courts had recently concluded, these conservation advocates were agents of public interest.⁴⁴ The opinions that these Justices wrote were possible, even though their proposals failed, because there was widespread perception of a clear, definite public interest in environmental protection. Whether the courts called the representatives of that interest “the river as plaintiff” or the Sierra Club as private advocate of public values, honoring the natural world meant supporting conservation; it also meant holding consciousness open to new roles for nature.⁴⁵

In the early 1970s, the language of changing ethical consciousness waxed bold even in Congress, where major environmental statutes passed by overwhelming margins between 1969 and 1973.⁴⁶ Speaking in support of the Clean Water Act,⁴⁷ Senator John Sherman Cooper of Kentucky insisted that the bill “asserts the primacy of the natural order on which all, including man, depends.”⁴⁸ Senator Jennings Randolph of West Virginia also voiced this moral view of the antipollution statutes, specifically the Clean Air Act.⁴⁹ Randolph praised the Act’s sponsor, Senator Edmund Muskie of Maine, for “emphasiz[ing] the personal obligation . . . a rebirth, I should say, of responsibility on the part of the individual citizen of this country,”⁵⁰ which Muskie hastened to affirm: “There has to be a commitment to it by every citizen, not only with respect to the activities of others, but with respect to each citizen himself”⁵¹

44. *Id.* at 757–60.

45. This was very different from the view of the area as a constellation of clashing interest groups with various enforcement and antienforcement agendas that would come to dominate standing doctrine from the mid-1980s forward. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561–62 (1992) (distinguishing between the unproblematic case in which the plaintiff is “himself” the object of regulation and the much more vexed case where the plaintiff complains of government’s failure to regulate a third party); Antonin Scalia, *The Doctrine of Standing as an Essential Element of the Separation of Powers*, 17 SUFFOLK U. L. REV. 881 (1983) (arguing that the central judicial responsibility is to protect the rights of individuals against government, with the assertion of property rights against regulation being paradigmatic).

46. *See* RICHARD M. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 69 (2004) (“The average vote in favor of major federal environmental legislation during the 1970s was 76 to 5 in the Senate and 331 to 30 in the House”).

47. Clean Water Act, Pub. L. No. 92-500, 86 Stat. 816 (1972) (codified as amended at 33 U.S.C. §§ 1251–1387 (2006 & Supp. IV 2011)).

48. 117 CONG. REC. 38,819 (1971) (statement of Sen. John Sherman Cooper).

49. Clean Air Act, Pub. L. No. 91-604, 84 Stat. 1676 (1970) (codified as amended at 42 U.S.C. §§ 7401–7671q (2006 & Supp. IV 2011)).

50. 116 CONG. REC. 42,392 (1970) (statement of Sen. Jennings Randolph).

51. *Id.* (statement of Sen. Edmund Muskie).

Expressing confidence that “[t]he whole intent” of such statutes was “to make a national commitment,”⁵² Senator Muskie optimistically announced of the Clean Air Act: “This bill is going to require that the American motorist change his habits, his tastes, and his driving appetites. . . . The consumer also must make sacrifices”⁵³ These statutes were not to be understood simply as technical measures, though they were also that: in the minds of some of their most important supporters, they represented the adoption of new shared principles, which would have to take effect both in institutions and in the values and habits of individuals.

Popular conversation went even further. The editors of *Time* asserted that modern economic life rested on a view of “technological man as the personification of Faust, endlessly pursuing the unattainable”⁵⁴ and traced “the environment crisis” to the “deeply ingrained assumptions” that “nature exists primarily for man to conquer . . . [and] is endlessly bountiful.”⁵⁵ Speaking for a rising (if ephemeral) consensus among liberal elites, columnist Flora Lewis wrote of ecology: “The ideas . . . are so fundamentally new, so drastically opposed to the heritage of many centuries, they are painful to absorb. . . . Environmental harmony requires a much deeper review of western thought, now challenged on almost every level.”⁵⁶

Social movements and cultural innovators sounded the same notes. Environmentalists asserted that “ecology [which yesterday] was a science . . . had better become something like a religion,”⁵⁷ and called for a “cultural transformation” marked by “personal commitment to a new philosophy and poetry of ecology.”⁵⁸ The syncretic spiritual movements of the 1970s did indeed take a strong ecological cast, combining strands of Asian teaching with the nature-

52. 118 CONG. REC. 36,872 (1972) (statement of Sen. Edmund Muskie).

53. 116 CONG. REC. 33,096 (1970) (statement of Sen. Edmund Muskie). The previous two quotes address different legislation, the Clean Water Act and Clean Air Act, respectively. The discussion of the two is remarkably similar in tone.

54. Burt Shavitz, *Fighting To Save the Earth from Man*, TIME, Feb. 2, 1970, at 56, 62.

55. *Id.* at 62–63.

56. Flora Lewis, *Instant Mass-Movement*, L.A. TIMES, Apr. 29, 1970, at B7.

57. Elizabeth Rogers, *Protest!*, SIERRA CLUB BULL., Dec. 1969, at 20 (quoting an editorial by Kerry Thornley, published in the War Resisters League’s *Workshop in Nonviolence*).

58. Connie Flateboe, *Environmental Teach-In*, SIERRA CLUB BULL., Mar. 1970, at 14, 15.

oriented Romanticism of the U.S. tradition.⁵⁹ In a work of synthetic history and moral advocacy, Professor Roderick Nash, author of the lastingly important *Wilderness and the American Mind*,⁶⁰ argued that the evolution of moral and legal consciousness over centuries should now culminate in recognizing the moral importance of natural entities, living and otherwise, for their own sake.⁶¹

All of this is in the spirit of what Professors Tribe and Stone wanted to see: the codevelopment of environmental law and ethical consciousness. The question of “the order of nature and our place in it”⁶² seemed to be on the national agenda, not just available but unavoidable, and open to all kinds of new answers. This was true in law, politics, and the broader run of culture. The task seemed to be to rethink traditional fields of thought and practice in light of ecological principles and the environmental crisis.

Change came soon enough. In the decades that followed, conservation would come to seem more a partisan position than a point of public consensus. Fewer people expressed the conviction that honoring nature could change consciousness and institutions. Environmental law and politics came to seem more trench warfare on the one hand, administrative and managerial problem on the other, than a site of common interest and source of transformation. In the early 1970s, then, environmental ethics and law stood briefly back-to-back and strode rapidly in opposite directions.

59. Paul Shepard wrote in *The Subversive Science*, a 1969 treatment of the political and ethical meaning of ecology, that

we must . . . affirm [nature's] metabolism as our own—or rather, our own as part of it. To do so means . . . a wider perception of the landscape as a creative, harmonious being . . . [W]e must affirm that the world is a being, a part of our own body.

Paul Shepard, *Introduction: Ecology and Man—A Viewpoint*, in *THE SUBVERSIVE SCIENCE: ESSAYS TOWARD AN ECOLOGY OF MAN* 1, 3 (Paul Shepard & Daniel McKinley eds., 1969). In the same spirit, Buddhist popularizer Alan Watts argued that continuity among all things, joined with the role of perception in creating experience, meant that “[o]ur whole knowledge of the world is, in one sense, self-knowledge,” a conclusion he claimed should be deeply reassuring. Alan Watts, *The World Is Your Body*, in *THE ECOLOGICAL CONSCIENCE* 181, 188 (Robert Disch ed., 1970).

60. RODERICK F. NASH, *WILDERNESS AND THE AMERICAN MIND* (1967).

61. See RODERICK F. NASH, *THE RIGHTS OF NATURE: A HISTORY OF ENVIRONMENTAL ETHICS* 13–32 (1989) (tracing the development of the rights of nature); NASH, *supra* note 60, at 269–71 (same).

62. RAWLS, *supra* note 1, at 512.

II. THE DIVORCE OF ENVIRONMENTAL LAW AND ETHICS

A. *So Much for Metaphysics*

Professional ethicists soon took up the invitation to explore the new frontier of environmental values. If there were a “natural order of things” that deserved moral respect, if nature had value that was not based on serving human interests, how should people make sense of all this? Such philosophical questions were natural, even unavoidable, in light of the turn that the broader conversation had taken.

This Article does not give an encyclopedic account of forty years of work in environmental ethics. Instead it sets out a few major, exemplary developments and their relation (or lack of relation) to environmental law. Much of the important early work in environmental ethics centered on value theory, that is, on what matters and why. Philosophers argued that the inherited vocabularies of ethics could not capture the value of nature, focused as they were on human interests (in consequentialism) and rights (in deontological and contract theories).⁶³ Some further account of value seemed necessary. Traditional vocabularies seemed unable, for instance, to make sense of the following example. Imagine a solitary human being, perhaps the last in the world, or perhaps Robinson Crusoe about to be rescued from an island to which no one would ever return.⁶⁴ Why should this person, unbound by considerations rooted in other people’s rights or interests, not despoil nature, kill the last pod of blue whales, and so forth? Vocabularies based in human interests and rights gave no basis for an answer. Yet surely a view of ethics that was inarticulate about this question was seriously incomplete. A philosophical account of nature’s value should provide better guidance for our non-Crusoe circumstances, illuminating the considerations that should stay Crusoe’s hand and helping us integrate these with more familiar values.

1. *Intrinsic Versus Instrumental Value.* This issue gave rise to a set of arguments about whether nature has “intrinsic value,” and, if so, what that value means for humans. Some argued that

63. See, e.g., Richard Sylvan (Routley), *Is There a Need for a New, an Environmental, Ethic?*, in ENVIRONMENTAL ETHICS 47 (Andrew Light & Holmes Rolston III eds., 2003) (“[T]he important Western traditions exclude an environmental ethic . . .”).

64. See *id.* at 49–50 (providing various examples of Robinson Crusoe-like scenarios).

“anthropocentric” accounts of value must yield to a “biocentric” view locating value in life itself (and other aspects of self-organizing nature such as species, ecosystems, and even the planet).⁶⁵ In its strongest versions, sometimes called “ecocentric” and associated with “deep ecology,” this perspective offered a new theory of value in general, presenting human interests and rights as just one example of the ethical weight of all of self-organizing nature.⁶⁶ At the opposite pole was the resolutely anthropocentric position that the concept of value makes no sense independent of human beings *for whom* the value matters.⁶⁷ Saying that trees have value is like saying that they have a political system—a misplaced projection of something that uniquely characterizes the life of human beings. As with any philosophical debate, there were all manner of intervening variations, bristling with distinctions.⁶⁸

This line of value theory ran into two walls. The first was a limit on the theory’s internal conceptual development. The second was a

65. See Kenneth E. Goodpaster, *On Being Morally Considerable*, 75 J. PHIL. 308, 308–25 (1978) (arguing that accepting the value of life in all its forms provides the only nonarbitrary account of value, and that this implies an ethic of respect for life in all its forms); Holmes Rolston III, *Value in Nature and the Nature of Value*, in ENVIRONMENTAL ETHICS, *supra* note 63, at 143 (arguing that every level of living organization, from plants through species and ecosystems, has a kind of moral perspective from which it may be said to value its own continuation and flourishing).

66. See DEEP ECOLOGY FOR THE 21ST CENTURY 3–93 (George Sessions ed., 1995) (setting out a variety of articulations of the deep-ecology position); Arne Naess, *The Deep Ecological Movement: Some Philosophical Aspects*, in ENVIRONMENTAL ETHICS, *supra* note 63, at 262 (setting out a seminal account of deep ecology).

67. A. Myrick Freeman, *The Ethical Basis of the Economic View of the Environment*, in THE ENVIRONMENTAL ETHICS & POLICY BOOK 318 (Donald VanDeVeer & Christine Pierce eds., 2003) (noting that a welfare-economic analysis of Pareto or Kaldor-Hicks form appropriately restricts normative weight to those features of the natural world actually valued by human beings, and that it does so in a way that is maximally attentive to the interests of all persons).

68. See, e.g., Eugene Hargrove, *Weak Anthropocentric Intrinsic Value*, in ENVIRONMENTAL ETHICS, *supra* note 63, at 175 (explaining that although the human perspective is inseparable from the perception of value, human beings value things for themselves rather than instrumentally in relation to their interests, and that a too-strong anthropocentric account of value obscures this fact, which can be styled as an accurate human perception of intrinsic natural value); John O’Neill, *The Varieties of Intrinsic Value*, in ENVIRONMENTAL ETHICS, *supra* note 63, at 131 (arguing that although the natural world has intrinsic value, this fact does not create normative obligations for human beings, because natural value is a fact, and the fact-value distinction forbids direct inference of obligation, unless one takes the virtue-ethics view that respect for such value is part of a flourishing life); Thomas E. Hill, Jr., *Ideals of Human Excellence and Preserving Natural Environments*, 5 ENVTL. ETHICS 211 (1983) (making arguments similar to John O’Neill’s, but with far greater focus on developing the virtue-ethics perspective).

limit on the theory's ability to promote any action at all. Conceptually, the issue of intrinsic versus nonintrinsic value rapidly produces a dilemma, an irresolvable standoff between anthropocentric and biocentric perspectives. On the anthropocentric side, to speak of value really is to hold it in one's mind, where it presents itself as a reason for action or esteem.⁶⁹ Our every thought about value seems to confirm the argument that value is a phenomenon in the human mind, inseparable from the self-aware creatures that experience it. Even in envisioning the denuded world left after the last human being has wreaked his destruction, we are importing into that world our own mind, which imaginatively sees and responds to it. In this respect, the anthropocentric perspective has an unbreakable grip on the issue.

On the other hand, although it is always *we* who experience value, the *way* we experience it is often without reference to its serving any human interest. Therefore, presenting the value of nature exclusively in terms of its status in the human mind seems to get the relation backward: in fact, we frequently experience our valuation of, say, an intact ecosystem or a mountain vista, as a *response to* value, not a *conferral* of value based on our preferences.⁷⁰ The mind is the theater, so to speak, in which we experience value; but that does not make the mind value's source, any more than it creates the other people with whom we have relationships.

Here we arrive at the first, conceptual limitation of this branch of value theory: a dilemma as to the basis of nature's value. On the anthropocentric side, there is something human centered about value, and in consequence what we can understand as value must take a shape accessible to us. Any claim about the *value* of nature must call on considerations that humans can regard as values, that is, which they can imagine themselves as pursuing and respecting. As the philosopher Bernard Williams observed in making this point, whatever kinds of answers we give to the issue of value "must be

69. See CHARLES TAYLOR, *SOURCES OF THE SELF: THE MAKING OF THE MODERN IDENTITY* 25–52 (1989) (arguing that perception of value and distinctions therein are intrinsic to human consciousness and agency); Hargrove, *supra* note 68, at 175–87 (arguing that a weak anthropocentric intrinsic-value theory is superior to a nonanthropocentric one because it focuses attention on deeply held values that are a part of our cultural heritage).

70. See BERNARD WILLIAMS, *Must a Concern for the Environment Be Centred on Human Beings?*, in *MAKING SENSE OF HUMANITY AND OTHER PHILOSOPHICAL PAPERS* 233, 234–36 (1995) (making a similar set of observations).

human answers.”⁷¹ On the other hand, many values do not seem to depend on us for their importance. Thus, the philosophical inquiry into value winds up moored on a pair of fairly commonsensical judgments: it is we who experience value, but the content of value does not straightforwardly depend on us. When generalized into theories of value, these two judgments contradict each other, with the first producing comprehensive anthropocentrism, the other tending to exclude the essential human role.

The second limitation is that value theory fails to guide action: it does not help us decide what to do. Although value theory gives competing characterizations of what value is, the content of the value remains the same. Any specific value judgment—such as that an endangered species deserves protection—can be redescribed from intrinsic to anthropocentric and back again without any change in the action that it recommends. Thus, although it might seem that the Endangered Species Act⁷² values spotted owls intrinsically because it gives their survival importance independent of nearly any competing human interest, one can just as well describe it as expressing a human preference for species’ survival. Neither interpretation makes a bit of difference in the operation of the Act. The foray into value theory does not help in formulating or implementing environmental law. It thus seems to support the thought that environmental law gets no benefit from environmental ethics.

2. *Holism and Individualism in Value Theory.* A second philosophical foray also runs aground on paradox. This is the inquiry into *holism* and *individualism* in environmental value. Here the choice between the alternatives does have relevance to action, but each option is deeply unsatisfactory.

A holistic conception locates value in self-organizing systems such as ecosystems, species, or “nature” itself. In this respect, holism seems to capture something genuine about the experience of environmental value.⁷³ But holism runs into a pair of serious problems. First, it undermines the aim of environmental ethics: finding a way to assess human acts that affect the natural world. The

71. *Id.* at 234.

72. Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2006 & Supp. IV 2011).

73. See Elliott Sober, *Philosophical Problems for Environmentalism*, in ENVIRONMENTAL ETHICS 132 (David Schmidtz & Elizabeth Willott eds., 2d ed. 2012) (defining and exploring problems in the holistic perspective).

trouble is that human beings are part of the nature that holism embraces. Indeed, this is one of the central premises of post-1960s ecological thinking.⁷⁴ A holistic theory of value, combined with an ecological view of humans and nature, dissolves the distinction between human and nonhuman that is necessary to assess “our effect” on “the natural world.”⁷⁵ Why should human-induced extinction or climate change be an affront to holistic value, rather than another instance of the operation of natural systems, which we know, after all, to be unstable and take diverse forms over time? By dissolving the human-nature contrast, holism denies environmental ethics the grounds on which to ask, “What should we (humans) do with respect to nature (which is relevantly distinct from us)?” Precisely because a consistent holism includes humans in nature, the answer that holist value theory invites, “Act so as to preserve the value of nature,” is no answer at all.

Holism also fails to account for the value of individuals and other subsystemic entities, such as species. If natural systems and the processes that compose and maintain them are good, then illness and death are also good, as subsets of these processes. Indeed, even extinction, presumably bad from the “point of view” of a species, might have to count as good from that of an ecosystem or planet. This definition of “good,” however, seems to obliterate widely held concern for the interests of animals in not suffering, or of species in continuing to exist.⁷⁶ These concerns are major features of environmental law and politics, and an environmental ethics that would speak to the larger cultural ferment cannot define them out of existence.

A symmetrical difficulty arises for ethical individualism, the conceptual opposite of holism. Individualism, as the name suggests,

74. See, e.g., Jedediah Purdy, *American Natures: The Shape of Conflict in Environmental Law*, 36 HARV. ENVTL. L. REV. 169, 207–14 (2012) (setting out the contributions of the ecological perspective on nature and lawmaking).

75. Sober, *supra* note 73, at 136–39; see also WILLIAMS, *supra* note 70, at 233–40 (making this observation); Mark Sagoff, *Genetic Engineering and the Concept of the Natural*, PHIL. & PUB. POL’Y Q., Spring/Summer 2001, at 2, 5 (describing the uselessness of an all-encompassing account of the natural).

76. See Eric Katz, *Is There a Place for Animals in the Moral Consideration of Nature?*, in ENVIRONMENTAL ETHICS, *supra* note 63, at 85 (exploring this difficulty and arguing for a “balanc[ed]” approach); Mark Sagoff, *Animal Liberation and Environmental Ethics: Bad Marriage, Quick Divorce*, in ENVIRONMENTAL ETHICS, *supra* note 73, at 59, 64 (“A humanitarian ethic—an appreciation not of nature, but of the welfare of animals—will not help us to understand or to justify an environmental ethic.”).

locates value in the interests, points of view, or, perhaps, the very existence of individual animals and plants.⁷⁷ The basic plausibility of ethical individualism lies in the following thought. It is not difficult to think of an animal as having interests or a point of view—the wish to avoid pain, attachment to its young or its mate, or simply the interests of survival and reproduction. It is not strange to imagine respecting these as we respect similar interests in human beings. Although plants resemble us less markedly, we might say without absurdity that they have interests in water, air, minerals, survival, and even reproduction. What, though, might one say about an ecosystem's interests or moral point of view, or that of a species? What is the entity that should concern us here? Surely an animal has an interest in the ecological relations that give it food and shelter, and the extinction of a species implies the deaths of many animals, but these are individual interests in systemic relations, not values that attach to the systemic relations themselves. Talking about the “value of ecosystems” begins to look like a clumsy metaphor for adding up the value of individuals.

Focusing on individuals, however, does not square the theory with contemporary moral intuitions. Just as locating value in whole systems effaces concern for individuals, so locating value in individuals effaces concern for systems.⁷⁸ For instance, consistent commitment to avoiding the suffering of sentient beings would seem to imply exterminating predators, even genetically engineering wild species so that the survival of some no longer requires the suffering of others—creating, that is, a world either without foxes and grizzlies, or with herbivorous versions of them.⁷⁹ Although such a perspective has much to recommend it on grounds of avoiding the suffering of individuals, its blank indifference to the existence of species or persistence of natural systems writes those entities out of consideration. But respect for such entities is a basic and pervasive aspect of modern environmental consciousness, and an environmental

77. See, e.g., Harley Cahen, *Against the Moral Considerability of Ecosystems*, in ENVIRONMENTAL ETHICS, *supra* note 63, at 114 (defending individualism in value theory).

78. See *id.* at 115–17 (setting out the case that on even modestly individualistic premises, it is very difficult to ascribe moral importance to a “whole” such as an ecosystem); Gary E. Varner, *Can Animal Rights Activists Be Environmentalists?*, in ENVIRONMENTAL ETHICS, *supra* note 63, at 95, 95–104 (setting out this basic tension).

79. See GREGG EASTERBROOK, A MOMENT ON THE EARTH: THE COMING AGE OF ENVIRONMENTAL OPTIMISM 431 (1996) (envisioning a world where mankind “applies [genetic engineering] only for constructive purposes”); Sagoff, *supra* note 76, at 61–62 (“The liberationist must morally require society to relieve animal suffering wherever it can and at a lesser cost to itself, whether in the chicken coop or in the wild.”).

ethics that ignores them is having a different conversation.⁸⁰ There is nothing incoherent about an environmental ethics that takes the path of utilitarian reformism, hacking away at any value that cannot be reduced to the satisfaction of individual interests; but it is not the kind of ethics that could illuminate the cultural, political, and legal developments of the ecological era.

As alternatives in value theory, then, both individualism and holism seem blind to major considerations. They fail to take seriously strong and pervasive existing judgments. As with anthropocentrism and biocentrism, value theory runs into paradoxes. In both cases, trying to get to the root of “the order of nature and our place in it” produces monolithic accounts that are implausible, and impractical, because they seize on one aspect of environmental value and exclude competing considerations in the service of theoretical consistency. This development reinforces the impression that, contrary to John Rawls’s expectation and Professor Tribe’s ambition, environmental law had better try to get along without environmental ethics.

B. The Turn to Cost-Benefit Analysis

Instead of value theory, the main interaction between environmental law and ethics for the last thirty-plus years has been around utilitarianism, the philosophical approach of which CBA is a variant. Utilitarianism assesses states of affairs by reference to the well-being they produce.⁸¹ In the simplest form, more well-being means better states of affairs. Policymakers, in turn, should make the decisions that produce the highest level of well-being. In CBA, well-being is rendered into dollar equivalents to produce a single bottom line combining all the beneficial and harmful effects of a decision that is under contemplation.

1. *The Appeal of Utilitarianism.* What accounts for the turn to CBA in the United States? As with other developments in

80. See, e.g., RACHEL CARSON, *SILENT SPRING* (1962) (describing natural harmonies as the backdrop against which toxic pollution does its harm); DONALD WORSTER, *NATURE’S ECONOMY: A HISTORY OF ECOLOGICAL IDEAS* 284–90 (2d ed. 1994) (discussing Aldo Leopold’s culturally influential ecological thought and its emphasis on the value of whole systems); Purdy, *supra* note 74, at 210–14 (giving a detailed interpretation of ecological interdependence and the moral image of nature).

81. See 1 DEREK PARFIT, *ON WHAT MATTERS* 373 (Samuel Scheffler ed., 2011) (“Some Consequentialists are Utilitarians, who believe that . . . things go best when they go in the way that would, on the whole, benefit people most, by giving them the greatest total sum of benefits minus burdens.” (emphasis omitted)).

environmental ethics, context is the key. As a general matter, utilitarianism is especially attractive to decisionmakers when two conditions apply. First, the values that should guide decisions are specified, so that ethical inquiry can focus on application. Second, there is a workable metric for these values, so that the decision technique can produce a bottom line.⁸²

These conditions describe the situation of American environmental policy from the end of the 1970s until recently. The spate of environmental legislation that opened the 1970s established a set of goals for national policy: human health and environmental cleanliness in the antipollution statutes,⁸³ conservation of biodiversity in the Endangered Species Act,⁸⁴ and a (mainly ignored) set of substantive stewardship values in NEPA.⁸⁵ With the values broadly specified, the issues lay in the quintessentially administrative business of forecast and assessment. CBA, with its cash equivalents for human and environmental health, provided the metric. By contrast, the decisions involved in crafting and advocating around the statutes themselves had been essentially about the *choice* of values: the drafters could not have proceeded by CBA because they were deliberating over which values were to count as benefits, and which as harms—for instance, by choosing to value the preservation of a species and disvalue the use of a waterway for pollution disposal. Under those earlier, more fluid and legislation-driven conditions, the inquiries that value theory undertook seemed natural extensions of political activity because both were efforts to identify environmental value.⁸⁶ Under the conditions that held once legislation had largely

82. It is also important that there be enough knowledge of the likely consequences of alternatives to support a measurement that is more than speculation, but this issue is not the concern here.

83. *Cf.* 33 U.S.C. § 1251(a)(1)–(2) (2006) (requiring that by 1983, all U.S. waterways should be clean enough for recreation, and that by 1985, all “discharge of pollutants into the navigable waters be eliminated”); 42 U.S.C. § 7408(a)(1)(A) (2006) (directing that the identification of regulated air pollutants and the level of permitted air pollution be governed by a standard of “public health”).

84. *See* 16 U.S.C. § 1532(6), (20) (2006) (defining “endangered” and “threatened” species, the objects of the act’s regulation (internal quotation marks omitted)).

85. *See* 42 U.S.C. § 4331(a) (2006) (stating that NEPA aims at producing “conditions under which man and nature can exist in productive harmony”); *id.* § 4331(b)(1) (recognizing that NEPA enshrines the “responsibilities of each generation as trustee of the environment for succeeding generations”).

86. *See* Jedediah Purdy, *The Politics of Nature: Climate Change, Environmental Law, and Democracy*, 119 *YALE L.J.* 1122, 1180–90 (2010) (showing how Congress explicitly pursued

given way to administration, CBA was the much more natural extension of the now-dominant political activity of weighing and comparing settled values.

Utilitarianism is also attractive where decisionmakers seek neutrality among competing values, because welfare seems uncontroversial compared to, say, competing ideas of family virtue, sexual morality, or nationalism.⁸⁷ The idea that the national government should aim to maximize total wealth—although not very plausible as a theory of how to achieve the best society—is appealing partly because of its neutrality among competing substantive values or conceptions of the good life.⁸⁸ We may not be able to agree on the definition of marriage, or of patriotism, or the proper balance of liberty and security, but everyone would like more of whatever they like, and more wealth means, other things equal, a better shot at that goal.

CBA appealed to neutrality in this way by rendering competing values into a single currency. Avoiding explicit engagement with clashing values was at a premium because the short-lived appearance of consensus around environmental values, which flourished in the late 1960s and early 1970s, gave way to open conflict by the beginning of the 1980s.⁸⁹ The new environmental statutes arrived just before, and helped to spur, a change in the political attitude of the U.S. business community.⁹⁰ An anti-regulatory stance entered the heart of the public debate, from lobbying and campaign contributions to litigation and think tanks.⁹¹ These changes made the impression of a proconservation consensus impossible to maintain.

goals of choosing and changing values in lawmaking of the early 1970s, with particular reference to the Clean Air Act and Clean Water Act).

87. See MICHAEL SANDEL, *DEMOCRACY'S DISCONTENT: AMERICA IN SEARCH OF A PUBLIC PHILOSOPHY* 290–91 (1996) (describing wealth maximization as a twentieth-century social policy that served to achieve a kind of neutrality while evading and ultimately hollowing out more substantive debates).

88. *Id.*

89. See generally THOMAS O. MCGARITY & WENDY WAGNER, *BENDING SCIENCE: HOW SPECIAL INTERESTS CORRUPT PUBLIC HEALTH RESEARCH* (2008) (describing the political economy in which CBA has come to the fore).

90. See STEVEN M. TELES, *THE RISE OF THE CONSERVATIVE LEGAL MOVEMENT: THE BATTLE FOR CONTROL OF THE LAW* 90–134 (2008) (outlining the development of law and economics as a prominent legal-scholarly method, with its skepticism of regulation and of any nonwelfarist idea of public good).

91. *Id.*

Another challenge to the ephemeral consensus came from cultural attitudes that turned out not to have changed as quickly or completely as many imagined. Old, influential constituencies supported using natural resources for economic profit. Farmers and ranchers, miners, and other resource users had long been the darlings of public rhetoric, invited to believe themselves the economic and moral linchpin of the nation.⁹² These groups enjoyed access to public lands for mining, grazing, and timbering, and virtually unlimited liberty to do as they liked on private land.⁹³ Such groups rallied against public-lands reforms as early as the first restrictions on timbering federal acreage, and they responded to the new requirements of environmental law with the first antienvironmental movement, the Sagebrush Rebellion of the late 1970s and 1980s.⁹⁴ This movement, opposed to regulation and committed to the economic use of resources, put the country on notice that pre-1970s views of how to approach nature were not going away. Many of the same ideas animated the Counties Movement that churned western states in the 1990s and are present in strands of the Tea Party movement.⁹⁵ All are reminders of the persistent and basic division over environmental values in the United States.

92. See Purdy, *supra* note 74, at 178–88 (describing the development and persistence of the prodevelopment view of nature in U.S. law and politics).

93. See 30 U.S.C. § 22 (2006) (“[A]ll valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States”); 43 U.S.C. § 932 (1970) (“The right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted.”) (repealed by Federal Land Policy and Management Act of 1976, Pub. L. No. 94-579, 90 Stat. 2743 (codified as amended at 43 U.S.C. §§ 1701–1782 (2006 & Supp. IV 2011))).

94. See R. MCGREGGOR CAWLEY, *FEDERAL LAND, WESTERN ANGER: THE SAGEBRUSH REBELLION AND ENVIRONMENTAL POLITICS* 71–91 (1993) (outlining sources and formulations of western objections to federal policy around the Sagebrush Rebellion).

95. See Tom Kenworthy, *Blazing Utah Trails To Block a Washington Monument*, WASH. POST, Nov. 30, 1996, at A1 (describing western members of the County Movement engaged in efforts to assert local control over federal land); Ben McGrath, *The Movement: The Rise of Tea Party Activism*, NEW YORKER, Feb. 1, 2010, at 40 (detailing the growth in popularity of the contemporary Tea Party movement and describing it as a “temporary realignment of political interests”); *Montana House Votes To Nullify Endangered Species Act*, BOZEMAN DAILY CHRON. (Feb. 19, 2011), http://www.bozemandailychronicle.com/news/article_85f9f742-3c64-11e0-a5ec-001cc4c002e0.html (describing efforts by Minnesota Tea Party legislators to use the “ancient ‘nullification’ doctrine to disregard the [Endangered Species Act]”); Diane Roberts, *The EPA: The Tea Party’s Next Target*, GUARDIAN (Aug. 3, 2011, 2:00 PM EDT), <http://www.guardian.co.uk/commentisfree/cifamerica/2011/aug/03/epa-republicans-tea-party> (describing the recent efforts of House Republicans to defund the Environmental Protection Agency).

In light of all these countervailing populist positions, the pressing question no longer seemed to be how to get advocacy groups representing the “public interest” in nature into the courtroom, as Justices Douglas and Blackmun supposed in *Morton*.⁹⁶ Nor was the question how to cultivate and expand new ideas, as Professors Tribe and Stone urged.⁹⁷ For those charged with administering new laws, the challenge was now to maintain legitimacy with a mode of decisionmaking that could transcend and integrate divided values.

The turn to welfarism, then, was like the early period of openness and calls for “metaphysics”: each of these very different ways of connecting environmental law with ethics reflected the practical problems, institutional arrangements, and cultural landscape of its time. If they revealed any timeless truth about environmental ethics and law, that must be despite their deep connection with the pressures and opportunities of their respective moments.

2. *Welfarism’s Questions.* In the first decade of the twenty-first century, much of the scholarship at the intersection of ethics and environmental law addressed problems that utilitarianism raises. These problems include how to measure well-being, whether a single measure can accommodate diverse values, and whether concentrating on overall well-being implies insensitivity to individuality and the value of each life.

Utilitarianism’s concern is essentially aggregative. Whether it aims at simple maximization of some desideratum or adopts distributive considerations, its concern is with the sum—and maybe also the shape—of the whole.⁹⁸ Nothing in the aggregative method

96. See *Sierra Club v. Morton*, 405 U.S. 727, 745 (1972) (Douglas, J., dissenting) (“The standards given those agencies are usually expressed in terms of the ‘public interest.’ Yet ‘public interest’ has so many differing shades of meaning as to be quite meaningless on the environmental front.”); *id.* at 755–56 (Blackmun, J., dissenting) (asking whether the plurality’s decision to deny standing made the doctrine “so inflexible that we render ourselves helpless when the existing methods and the traditional concepts do not quite fit and do not prove to be entirely adequate for new issues”).

97. See Tribe, *supra* note 16, at 1341 (“At a minimum, we must begin to extricate our nature-regarding impulses from the conceptually oppressive sphere of human want satisfaction, by encouraging the elaboration of perceived obligations to plant and animal life and to objects of beauty in terms that do not falsify such perceptions from the very beginning by insistent ‘reference to human interests.’” (citation omitted) (quoting John Passmore, *Removing the Rubbish: Reflections on the Ecological Craze*, ENCOUNTER, Apr. 1974, at 11, 19)); *supra* notes 32–33 and accompanying text.

98. Of course any theory can build in side constraints, and for purposes of implementation it is natural to do so. For a wide-ranging consideration of the alternatives within welfarism, see

prevents disregarding or sacrificing inconveniently situated individuals or sloughing over values that some people treasure.⁹⁹ Indeed, when the inquiry is trained in a certain direction—for instance, to the question of how much risk of preventable disease to tolerate next year, or how much to permit greenhouse-gas concentrations to increase over one hundred years—it is in the nature of the method to embrace such sacrifices, even though the people so sacrificed cannot be identified in advance.¹⁰⁰ At a certain level of abstraction, this aggregation simply means that no maximizing strategy—even one also concerned with distribution—genuinely approximates the individualistic Pareto criterion, with its requirement that changes make no one worse off.¹⁰¹ Maximizing strategies generate distributive decisions, which, for practical purposes, always disadvantage some individuals relative to plausible alternatives. When the thing being distributed is risk of preventable death, casting the disadvantaging as a sacrifice of some for the benefit of others illuminates part of the logic of the reasoning. These issues have drawn much of the normative energy in environmental law.

These issues arise predictably in a setting that is dominated by welfarist reasoning. It takes nothing away from their importance to say that they are symptoms of the same conditions that have made welfarism the leading normative technique of the last three decades. They concern issues of distributive fairness and interpersonal

generally MATTHEW D. ADLER, *WELL-BEING AND FAIR DISTRIBUTION: BEYOND COST-BENEFIT ANALYSIS* (2012).

99. See RAWLS, *supra* note 1, at 27 (“Utilitarianism does not take seriously the distinction between persons.”).

100. See Frank Ackerman & Lisa Heinzerling, *Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection*, 150 U. PA. L. REV. 1553, 1557–58 (2002) (suggesting that CBA pervasively distorts the values it claims to organize and disregards the value of individual life); Lisa Heinzerling, *Knowing Killing and Environmental Law*, 14 N.Y.U. ENVTL. L.J. 521, 522 (2006) (arguing that decisions guided by CBA result in knowing decisions to kill persons in violation of a norm against knowing killing); cf. Daniel A. Farber, *Rethinking the Role of Cost-Benefit Analysis*, 76 U. CHI. L. REV. 1355, 1392 (2009) (reviewing RICHARD L. REVESZ & MICHAEL A. LIVERMORE, *RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH* (2008)) (explaining that some version of CBA is indispensable for rational resource allocation, but in the face of uncertainty and basic value conflict it cannot replace more flexible, imaginative, and democratic procedures).

101. See DOUGLAS KYSAR, *REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY* 102–03 (2010) (describing the Pareto efficiency criterion, which is satisfied “only if at least one individual is made better off by the proposal and no individual is made worse off”).

obligation, core concerns of moral and political philosophy, and only incidentally the value of the natural world.

III. A NEW RELATIONSHIP BETWEEN LAW AND ETHICS

Today there is reason to think that the environmental ethics that Rawls imagined will become newly relevant as problems arise and attitudes emerge in political, cultural, and legal responses. This is an occasion to renew the openness and creativity that once lay in the relation between environmental ethics and environmental law and policy—not because we wish it were so, but because circumstances are inviting it again. Indeed, they are demanding it.

We cannot simply restart the decades-old ambition to join environmental law to an enriched and changing environmental imagination. For an effective renewal, we need to understand why earlier hopes faded and how new ones might succeed. One help is a nuanced picture of how moral and environmental imagination have shaped the development of environmental law. Another is a humble view of ethics, as a participant in voicing plural and often clashing values, rather than a razor or Mosaic tablet distinguishing right from wrong thought. A reformed understanding of the relation between environmental law and ethics can help to make them productive for each other.

This redevelopment would be very much to the good. Environmental law needs ethics, though it needs an ethics that is sensitive to the sources and activity of law.

A. *The Importance of Change in Environmental Ethics*

Environmental law needs ethics because it is blind without values. Law is action oriented, designed to guide decisions, and decision is impossible without distinctions between better and worse, fine and terrible, and so on, for sorting among alternatives.¹⁰² CBA, the most would-be neutral of procedures, works only on the basis of prior judgments about what counts as good and bad.¹⁰³ Sometimes

102. See TAYLOR, *supra* note 69, at 25–52 (suggesting that moral decisionmaking is guided by frameworks that distinguish between alternatives); see also CHRISTINE M. KORSGAARD, *SELF-CONSTITUTION: AGENCY, IDENTITY, AND INTEGRITY* 1–26 (2009).

103. See KYSAR, *supra* note 101, at 46–67 (discussing CBA as a specific and debatable formulation and application of welfarist theory); Alyson Flournoy, *Building an Environmental Ethic from the Ground Up*, 37 U.C. DAVIS L. REV. 53, 57–62 (2003) (explaining that environmental law contains implicit ethical commitments which require interpretation and

that judgment is crystallized in a statute, which establishes some values as the goals of its scheme.¹⁰⁴ When CBA leaves statutes behind and aims at maximizing overall social benefit, it becomes a conduit for individual judgments of value, which it adds up: more individual preferences satisfied means greater benefit at the bottom line.¹⁰⁵ Decision requires orienting value, whether it is established at the personal, legislative, or administrative level. A relatively mechanical, seemingly neutral decision procedure is possible as an administrative technique only because it takes its normative substance from decisions made at other levels.

This basic point would not have much force in this discussion if the substance of environmental values were stable and agreed on. In fact, however, the history of environmental lawmaking reveals perennial change and contest over values. American ideas of good and bad in relation to nature were sharply different in 1789, 1848, 1917, and 1960, and they were often hotly contested in the moment.¹⁰⁶ The national wilderness system, now about 107 million acres closed to all development, would have been anathema to those who cleared the continent for a republican “empire of liberty,” or, further south, an empire of slavery, and who saw national mission and character in bringing wild land under the rule of axe and plough.¹⁰⁷ The Endangered Species Act’s solicitude for large predators would have enraged people who waged a war of extermination against wolves and saw their very presence on the land as an affront to settlement and

excavation); Purdy, *supra* note 86, at 1180–90 (showing how the substantive debates over the goals of antipollution statutes set the terms for later application of CBA); Lee Talbot, *Does Public Policy Reflect Environmental Ethics? If So, How Does It Happen?*, 37 U.C. DAVIS L. REV. 269, 279–80 (2004) (concluding that ethical commitments pervade the policymaking process, although they are often not explicit).

104. See, e.g., 42 U.S.C. § 7409(b)(1) (2006) (requiring that air-quality standards under the Clean Air Act shall be designed “to protect the public health”).

105. This sentence presupposes the dominant contemporary form of CBA, which measures benefit by reference to individual preferences. It is, of course, possible to ascribe substantive interests to persons in the classical utilitarian mode, which more closely resembles John Rawls’s “primary goods,” and in which people have an interest in having whatever they want to do with their lives. See RAWLS, *supra* note 1, at 62 (defining “primary goods” as “things that every rational man is presumed to want”); Robert Cooter & Peter Rappoport, *Were the Ordinalists Wrong About Welfare Economics?*, 22 J. ECON. LITERATURE 507, 520–23 (1984) (discussing favorably the classical utilitarian mode).

106. Purdy, *supra* note 74, at 215–16 (summarizing this claim); *id.* at 178–214 (setting out the claim in considerably more detail).

107. See *id.* at 178–88.

civilization.¹⁰⁸ The ideal of clean-flowing waterways with abundant natural life that the Clean Water Act adopted, and the Act's refusal to treat waterways as waste-disposal systems,¹⁰⁹ would have been mysterious to Americans who, well into the twentieth century, saw rivers as the workhorses of industrial and municipal effluent processing.¹¹⁰ This last point illuminates why, although a conventional story treats the Clean Water Act as a response to the burning of the Cuyahoga River—and it was—earlier infernos on the same waterway had not struck observers as symptoms of an environmental crisis.¹¹¹ Other values had to change for fires to mark problems rather than Promethean progress, for wolves to be inspiring rather than abhorrent, and for wilderness areas to be secular cathedrals rather than banners reading, “National mission not accomplished.”¹¹²

To repeat, one reason that commentators in the early 1970s believed environmental law should contribute to, and learn from, changing environmental values was that such values then seemed highly open to change.¹¹³ History reveals that this openness was hardly unique to the early 1970s, though it was unusual in its intensity and the sweep of lawmaking it inspired. Changing values lie at the very heart of changes in the environmental-law regime. The recent impression that environmental law gets along well enough without engaging environmental value and imagination becomes less plausible when one appreciates that they have always been intertwined.

History also illuminates why no new consensus emerged from the ecological revolution of the early 1970s, despite widespread expectations to the contrary. Those who opposed the new

108. See BARRY HOLSTUN LOPEZ, *OF WOLVES AND MEN* 137–99 (1978) (detailing campaigns of extermination against wolves and the cultural environment in which these campaigns took place).

109. See *supra* note 83 and accompanying text.

110. See RICHARD N.L. ANDREWS, *MANAGING THE ENVIRONMENT, MANAGING OURSELVES: A HISTORY OF AMERICAN ENVIRONMENTAL POLICY* 116–17 (2d ed. 2006) (discussing the extensive use of waterways for effluent disposal in the nineteenth and early twentieth centuries and the environmental problems that arose from this use as industrial activity and urban concentration increased).

111. Jedediah Purdy, *Climate Change and the Limits of the Possible*, 18 *DUKE ENVTL. L. & POL'Y F.* 289, 299 (2008).

112. See *id.* at 298–305. This is also the burden of the argument of Purdy, *supra* note 74, and Purdy, *supra* note 86.

113. See *supra* Part I.

environmental laws were deeply established in both culture and law.¹¹⁴ The new ecological era did not wash away its predecessors. Instead, it added to a cultural and legal palimpsest of ethical views.

B. A New Place for Law

Environmental law can be generative for the development of environmental ethics, as many people briefly expected it to be in the early 1970s. Law can and should contribute to the development of environmental values. It can do so in conjunction with an ethics that begins from experience and perception, trying to add clarity to their developments while setting them in productive relation to other ideas. Such an ethics would be collaborative with other conversations, a participant in a democratic conversation. This version of environmental ethics is very different from environmental philosophers' inquiries into value theory.

A humbler style of ethics might develop a productive relation to environmental law for two reasons. First, changes in experience and perception, and efforts to articulate these, have been central to the development of American environmental values, including the values that have motivated political and legal action. Second, the most important role of law in the development of environmental values may well be in shaping experience itself, which is a crucible of ethical change. Law quite unavoidably does an enormous amount to produce the encounters with the natural world that people can have, delimit the uses they can make of it, and define the ideals of human-nature interaction that they can live out.

With these two points in mind, we can recast law's relation to ethical development beyond the visionary proposals of the 1970s, to be at once more realistic and more ambitious. Reformers such as Professors Tribe and Stone proposed embedding dynamic environmental values *within legal process*, by innovations in standing doctrine and rights.¹¹⁵ These proposals have gone nowhere, but that does not mean that law cannot be productive for environmental ethics. Instead, reform can move outside law's internal processes, to

114. Cf. Purdy, *supra* note 74, at 216–26 (setting out the persistence of pre-1970s ideas of nature, and constituencies committed to such ideas, in the defining legal and political conflicts of environmental regulation).

115. See KYSAR, *supra* note 101, at 248–54 (discussing this reform strategy); *supra* notes 23–33 and accompanying text.

engage the geography of experience that environmental law produces.¹¹⁶

Seeing law as creating a geography of experience provides a way to get hold of the history of U.S. lawmaking around nature. For the first one hundred years, U.S. law worked relentlessly to make Americans into economically productive settlers of the continent.¹¹⁷ The Homestead Acts¹¹⁸ and other land-disposal statutes,¹¹⁹ beginning with the General Land Ordinance of 1785,¹²⁰ are archetypal here: they aimed to make citizens into forest clearers and farmers, forests and grasslands into fields.¹²¹ Other statutes had the same logic. The Mining Law of 1872¹²² established a you-dig-it-you-own-it policy to encourage private mining for minerals on public lands.¹²³ Laws governing irrigation development—tellingly called “reclamation”—aimed to promote agriculture on what had been desert.¹²⁴ These laws expressed the idea that nature existed to serve human needs richly, but would not do so gratuitously: it had first to be filled up and made fertile by

116. Professor Holly Doremus provides a terrific discussion of environmental policy through the lens of enabling personal encounters with nature that contribute to the development of individual values and, cumulatively and through debate, shared values. Doremus, *supra* note 14; Holly Doremus, *Shaping the Future: The Dialectic of Law and Environmental Values*, 37 U.C. DAVIS L. REV. 233, 252–67 (2003); *see also* Flournoy, *supra* note 103, at 68–80 (proposing “stepping stone” values that could move public discussion in the direction of new ethical concepts and practices).

117. *See generally* PAUL W. GATES, HISTORY OF PUBLIC LAND LAW DEVELOPMENT (1968) (providing a comprehensive history of the role of law in the westward development of the United States).

118. Stock-Raising Homestead Act, ch. 9, 39 Stat. 862 (1916) (codified as amended at 43 U.S.C. §§ 299, 301 (2006)); Enlarged Homestead Act of 1909, ch. 160, 35 Stat. 639 (repealed by Federal Land Policy and Management Act of 1976, Pub. L. No. 94-579, 90 Stat. 2743 (codified as amended at 43 U.S.C. §§ 1701–1782 (2006 & Supp. IV 2011))); Homestead Act of 1862, ch. 75, 12 Stat. 392 (repealed by Federal Land Policy and Management Act of 1976, 90 Stat. 2743).

119. Arid Land Act, ch. 1069, 25 Stat. 526 (1888) (codified as amended at 43 U.S.C. 662 (2006)); Timber and Stone Act, ch. 151, 20 Stat. 89 (1878) (repealed by Act of Aug. 1, 1955, ch. 448, 69 Stat. 434).

120. The General Land Ordinance of 1785, *reprinted in* 28 JOURNALS OF THE CONTINENTAL CONGRESS 1774–1789, at 375 (John C. Fitzpatrick ed., 1933).

121. *See generally* WILLARD HURST, LAW AND THE CONDITIONS OF FREEDOM IN THE NINETEENTH-CENTURY UNITED STATES (1956) (arguing that the federal design of settlement carried out a policy of unleashing human energy and initiative).

122. Mining Law of 1872, ch. 152, 17 Stat. 91 (codified as amended in scattered sections of 30 U.S.C. (2006 & Supp. IV 2011)).

123. For an excerpt from the statute, *see supra* note 93.

124. *See* GATES, *supra* note 117, at 635–41 (describing the development of arid-lands irrigation policies, which all aimed at enabling agriculturally productive settlement, and emerged from the recognition that farming was not possible in the arid West without irrigation).

the labor of settlers.¹²⁵ They also supposed that working the land was dignifying: productive labor was a basis for self-respect and the esteem of others.¹²⁶

Prodevelopment laws promoted a mode of activity and experience. The Jeffersonian surveyors' grid and the statutes creating private farms produced an American geography where the view of nature as conditionally bountiful formed the dominant human relation to nature.¹²⁷ The mission of making the continent productive was so emphatic that its legal geography, the settlement grid, swept over terrain that could not support nonirrigated farming, especially the semidesert of the Great Plains west of the Hundredth Meridian. The result was waves of failed settlers, probably the first ecological refugees in Anglo-American history.¹²⁸ The fact that the land itself threw back settlement in this case highlights how successful the rest of this continental project was. The ecological transformation and the cultural developments around it were world historical, yet Americans often discussed them as if they were the most natural things in the world, the expected upshot of a people meeting a continent. Both culture and technology helped drive this transformation; but so, too, did the invisible but all-shaping legal framework in which Americans spread west.

The second great moral vocabulary of nature in American life, the Romantic one, was also rooted in a mode of experience and perception and dependent on law to make that experience real. From this perspective, nature's most extreme and dramatic places inspire epiphany: flashes of insight into the order of things and one's place in it.¹²⁹ The thought that one encounters divinity and one's own self amid

125. I set out this idea with historical detail in Purdy, *supra* note 74, at 179–81.

126. See ERIC FONER, *FREE SOIL, FREE LABOR, FREE MEN: THE IDEOLOGY OF THE REPUBLICAN PARTY BEFORE THE CIVIL WAR* 9–38 (1970) (describing the interlaced premises of free-labor thought and the program of frontier settlement); see also DREW R. MCCOY, *THE ELUSIVE REPUBLIC: POLITICAL ECONOMY IN JEFFERSONIAN AMERICA* 48–100, 185–208 (1980) (describing the “republican” conception of proprietor-based freedom and virtue, and the role of frontier settlement in promoting it); GORDON S. WOOD, *EMPIRE OF LIBERTY: A HISTORY OF THE EARLY REPUBLIC, 1789–1815*, at 357–99 (David M. Kennedy ed., 2009) (describing the Jeffersonian program of western settlement).

127. See ANDREWS, *supra* note 110, at 83–88 (describing rectilinear land-ownership patterns and the land-disposal policies from which they emerged).

128. See WALLACE STEGNER, *BEYOND THE HUNDREDTH MERIDIAN: JOHN WESLEY POWELL AND THE SECOND OPENING OF THE WEST* 296–98 (1954) (describing the initial settlement of the Great Plains and its failure in the face of drought).

129. See JOHN MUIR, *My First Summer in the Sierra*, in *MY FIRST SUMMER IN THE SIERRA AND SELECTED ESSAYS* 1, 78 (“South Dome . . . seems full of thought, clothed with living light,

mountain peaks and deep crevasses is conventional in Romantic writing at least from William Wordsworth forward. Its most effective American popularizer, Sierra Club founder John Muir, modeled his literary persona on both Wordsworth and the Transcendentalists Ralph Waldo Emerson and Henry David Thoreau, who urged self-knowledge through attention to nature.¹³⁰

What distinguished Muir and his followers, and made them a lasting presence in political life, is that they worked these literary refinements into a mode of encountering nature. Their vocabulary of aesthetic and moral response was keyed to specific features of the Sierra Nevada and their other favorite landscapes, and they built a subculture and social movement around those places and the feelings they stirred.¹³¹ The heart of their legal program was to secure an American geography for this experience. They worked to ensure that American law dedicated large tracts of ground, such as Yosemite Valley, to the encounters that they saw as forming the highest human relation to nature.¹³² Their success was practical, in helping to drive the massive reservations of public land for recreation from the end of the nineteenth century through the twentieth (and beyond). It was also ideological, or, perhaps better, imaginative: although many of the national parks were originally created on the non-Romantic theory that they would be good for public health and civic spirit, by the 1920s the standard account of their purpose was that they were secular temples that restored the spirit by enshrining nature's finest aesthetic qualities.¹³³ They existed, that is, to make the Romantic way of meeting nature into real and widespread experience.

The newly protected public lands were thus a testing ground for new and more radical ideas about nature. From the 1920s forward, a

no sense of dead stone about it, all spiritualized, neither heavy looking nor light, steadfast in serene strength like a god."); *id.* ("From form to form, beauty to beauty, ever changing, never resting, [raindrops] all are speeding on with love's enthusiasm, singing with the stars the eternal song of creation."); *id.* at 76 ("The whole landscape glows like a human face in a glory of enthusiasm, and the blue sky, pale around the horizon, bends peacefully down over all like one vast flower.").

130. See Purdy, *supra* note 86, at 1145–49 (setting out these developments). On Muir's cultivated debt to literary romanticism, see DONALD WORSTER, *A PASSION FOR NATURE: THE LIFE OF JOHN MUIR* 160–61, 336–37 (2008).

131. See Purdy, *supra* note 86, at 1149–51 (arguing that the Sierra Club was created as "an early testing ground for a new way of describing the value of nature").

132. Purdy, *supra* note 74, at 205–06.

133. See *id.* ("The distinctive language that the Club pioneered was soon at the center of public conversation about the parks. Romantic epiphany joined and frequently superseded the language of conservation and recreation.").

set of Romantic recreationists built a movement dedicated to preserving “wilderness.” That word had previously been used for all sorts of open land, and it was often a derogatory term closely linked to “waste.”¹³⁴ Wilderness advocates both made wilderness something to prize and gave it a precise definition: land in which a solitary individual could encounter nature as it would have developed without human exploitation or development.¹³⁵ Such solitude, they insisted, was quite a different thing from the scenery and recreation that more mainstream Romantics prized.¹³⁶ The psychic experience that it prompted had less to do with ecstasy and revelation, more with reflection on one’s own smallness and lack of power before a vast and ancient natural world.¹³⁷ Wilderness advocates valued the natural world less for its extreme and dramatic qualities than for its extent, integrity, and essential mystery: they went into the wild not so much to rediscover the divine in themselves as to be strangers, and to learn by that experience.¹³⁸

The 1964 Wilderness Act,¹³⁹ which followed eight years of focused advocacy after its first introduction in 1956, gave the concept of wilderness legal operation. It set in motion the process that has preserved more than 107 million acres as statutory wilderness.¹⁴⁰ In developing a language to defend wilderness, advocates found words for their own experience and in turn made that experience more fully available to others. This successful advocacy and rhetorical innovation depended on the existence of undeveloped land where the encounters they valued were possible. The geography that Romantic preservationists created through public-land law both sustained the Sierra Club’s high-country pilgrimages and created the setting for

134. *See id.* at 181–83 (describing early American uses of the words “wilderness” and “waste”).

135. *See Purdy, supra* note 86, at 1160–73 (setting out the political, legal, and conceptual development of wilderness in the twentieth century).

136. *Id.* at 1165.

137. *See id.* at 1168 (“[Nature] awes us because it is always more complex, older, and stranger than we can understand.”); *id.* (“[I]n the Wilderness Society a new emphasis arose: less on responding rapturously to the intermingled beauty and sublimity of extraordinary places, such as Yosemite, than on apprehending the complex, interdependent character of natural systems and seeing oneself as integrated into them.”).

138. *See id.* at 1160–73 (setting out and analyzing this development).

139. Wilderness Act, Pub. L. No. 88-577, 78 Stat. 890 (1964) (codified as amended at 16 U.S.C. §§ 1131–1136 (2006)).

140. JAMES RASBAND, JAMES SALZMAN & MARK SQUILLACE, NATURAL RESOURCES LAW AND POLICY 639 (2d ed. 2009).

further experiments in experience and its interpretation. These encounters, in turn, produced new rounds of advocacy and reform, and a national landscape of wilderness.¹⁴¹

Environmental law, then, contributes most to the development of environmental ethics by shaping experience far outside the courtroom: it is encounters with nature that provide much of the material for shifts in perception and imagination. When law precludes certain encounters with nature, it also precludes—or at least inhibits—the growth of value and forms of identity that treat those encounters as paradigmatic. This relationship is why wilderness advocates, for example, understood the push for the 1964 Act to be about the survival of a mode of experience, so that Senator Frank Church of Idaho could say on the Senate floor that, without wilderness, the country would become a cage.¹⁴² It is also why a symmetrical tone of urgency entered the language of traditional resource users, such as ranchers and miners, when they came to see environmental regulation as a threat to their cultural survival.¹⁴³ When, however, law facilitates a valued way of engaging nature, it both fosters a set of values and promotes their further exploration and development.

C. *Ways of Understanding Change in Environmental Ethics*

Thinking about environmental law as a source of change in environmental values, then, requires understanding how law shapes the experience in which values change. Ethics is, in part, the interpretation of that fertile experience. How, though, does the “blooming, buzzing confusion”¹⁴⁴ of experience generate attachments, aversions, and commitments distinct enough that we can call them values? When we talk about change in environmental values, what is it that changes, and what remains unchanged? What is the busy foreground of innovation, and what is the stable backdrop against which it comes into focus?

141. See Purdy, *supra* note 86, at 1160–73 (describing the interaction of advocacy, argument, and experience in the wilderness-preservation movement).

142. 107 CONG. REC. 18,365 (1961) (statement of Sen. Frank Church).

143. See, e.g., A. Dan Tarlock, *Can Cowboys Become Indians? Protecting Western Communities as Endangered Cultural Remnants*, 31 ARIZ. ST. L.J. 539, 540–50 (1999) (explaining cultural conflict over resource use in western communities).

144. 1 WILLIAM JAMES, *THE PRINCIPLES OF PSYCHOLOGY* 488 (Morton D. Bogdonoff et al. eds., Classics of Med. Library 1997) (1890).

Environmental values have taken shape around clusters of ethical issues that they share with other, nonenvironmental questions. These categories are “formal” in the sense that they are organized around certain persistent questions about how to live; many “substantive” answers to these questions are possible, and different conceptions of nature have supported different answers.¹⁴⁵ Throughout, environmental values take some of their energy from the fact that ideas of nature are enlisted to help people engage deeply felt questions about how to treat others and conduct their own lives. Environmental values have especially engaged five themes in ethical experience.

1. *Hippocrates’s Restraint: On Not Harming Another.* A reluctance to harm another is as basic as anything to moral experience and is easy to identify in nearly any moral theory. It is present in the sympathy for others’ experiences that underlies much of Adam Smith’s *The Theory of Moral Sentiments*.¹⁴⁶ It honors the dignity of others with respect, the basic attitude of Immanuel Kant’s moral theory.¹⁴⁷ The commitment to averting others’ suffering, which it expresses, is a major psychological root of utilitarianism. Today, experimental psychologists treat the aversion to inflicting harm directly on another as one of the building blocks of moral life.¹⁴⁸ It has

145. See Joshua Greene, *Cognitive Neuroscience and the Structure of the Moral Mind*, in THE INNATE MIND: STRUCTURE AND CONTENTS 338 (Peter Carruthers, Stephen Laurence & Stephen Stich eds., 2005) (arguing for a constellation of “innate factors” that organize moral response); Jonathan Haidt & Selin Kesebir, *Morality*, in 2 HANDBOOK OF SOCIAL PSYCHOLOGY 797 (Susan T. Fiske, Daniel T. Gilbert & Gardner Lindzey eds., 5th ed. 2010) (giving a functionalist account of a repertoire of evaluative emotional responses argued to structure moral attitudes and provide the premises of moral reasoning); John Mikhail, *Universal Moral Grammar: Theory, Evidence and the Future*, 11 TRENDS COGNITIVE SCI. 143 (2007) (setting out the theory of a “universal moral grammar”). The term “family resemblance” is associated with Ludwig Wittgenstein’s rejection of seeking necessary and sufficient conditions for the application of words and concepts, in favor of a looser-knit standard of competent use, recognition of similarities and analogies, and so forth. See LUDWIG WITTGENSTEIN, PHILOSOPHICAL INVESTIGATIONS paras. 65–67 (G.E.M. Anscombe trans., 1953) (“Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all,—but that they are related to one another in many different ways.”).

146. See ADAM SMITH, THE THEORY OF MORAL SENTIMENTS 3–9 (Prometheus Books 2000) (1759) (describing the foundational role of sympathy in moral experience).

147. See THOMAS E. HILL, JR., DIGNITY AND PRACTICAL REASON IN KANT’S MORAL THEORY 38–57 (1992) (outlining Kant’s theory of the dignity of humanity and its foundational place in his thought).

148. Haidt & Kesebir, *supra* note 145, at 821–22.

been the object of almost obsessive inquiry into the resistance that experimental subjects show when asked to imagine sacrificing one person to save more. Although many will endorse the abstract thought that, in a tragic situation in which some will be lost, it is best to save the greater number, they resist sharply when asked to imagine making the sacrifice of the smaller number that this implies.¹⁴⁹ This is especially true when the sacrifice involves bodily coercion, such as pushing one man from a bridge to slow a train that will otherwise kill five people further down the track.¹⁵⁰

What the aversion to harm means, of course, thoroughly depends on who, or what, inspires respect or sympathy. The great historical development behind modern ethics—both classical utilitarianism and all types of rights-based theories—is the rise of universalism. These approaches to ethics, different as they are, have in common that they make sense only if one accepts the starting point that every person matters equally in a moral sense. This approach was not just a theoretical breakthrough but a development in social and moral imagination, in which sympathy for others and respect for their humanity burst the bonds of religion, race, and nation—however imperfectly and with however much backsliding.¹⁵¹ To take one example, much of the politics of slavery and abolition came down to a cultural, political, and legal contest over *who counts morally*. Appeals to rights, religion, and humanitarian sympathy revolved around that focal point.¹⁵²

149. See JUDITH JARVIS THOMSON, *Killing, Letting Die, and the Trolley Problem*, in RIGHTS, RESTITUTION, AND RISK: ESSAYS IN MORAL THEORY 78 (William Parent ed., 1986) (“A great many people think . . . that killing is worse than letting die.”); JUDITH JARVIS THOMSON, *The Trolley Problem*, in RIGHTS, RESTITUTION, AND RISK: ESSAYS IN MORAL THEORY, *supra*, at 94, 94 (explaining that many people “feel a certain discomfort at the idea of” sacrificing one to save a group of others). The problem was originally formulated by philosopher Philippa Foot. Philippa Foot, *The Problem of Abortion and the Doctrine of the Double Effect*, 5 OXFORD REV. 5 (1967). For an early empirical study of responses to the problem, see Joshua D. Greene, R. Brian Sommerville, Leigh E. Nystrom, John M. Darley & Jonathan D. Cohen, *An fMRI Investigation of Emotional Engagement in Moral Judgment*, 293 SCIENCE 2105, 2106 (2001).

150. See Greene, *supra* note 145, at 344–50 (describing these experiments). Although these experiments are generally cast as investigating contrasts between deontological, or duty-based theories of morality, and consequentialist theories, it seems fair to say that the impulse they track is present in both types of ethics.

151. See TAYLOR, *supra* note 69, at 393–401 (sketching aspects of this development).

152. See generally DAVID BRION DAVIS, *THE PROBLEM OF SLAVERY IN WESTERN CULTURE* (1966) (outlining the cultural developments contributing to early protests against slavery in North America in the late eighteenth century).

Similar developments have been important in environmental ethics. This point is particularly true in the humane and animal-rights movements, with their focus on the suffering of individuals of other species. The same logic is at work in what one might call the “personalizing” of natural phenomena other than animals. Trees, rivers and mountains, species, and ecosystems have all achieved some status as entities that (some) people recoil from harming.¹⁵³ Although Justice Douglas’s “[t]he river as plaintiff speaks” passage from *Morton* still strikes lawyerly readers as willfully eccentric, it does highlight that, in our culture, one can intelligibly describe rivers and mountains as having moral points of view, open to description in terms of rights and interests.¹⁵⁴ Therefore certain acts—emitting pollution from a factory waste-pipe, blasting open a mountaintop with dynamite, or degrading the habitat of a species in danger of extinction—can register as *harming* those entities, and can trigger the deep-seated aversion to causing harm.

2. *Who We Are Together: The Ethics of Solidarity.*

Environmental ethics has also tapped what experimental psychologist Jonathan Haidt calls “ingroup/loyalty,” and I would call “solidarity”: the sense of obligation connected with group membership, including the willingness to make sacrifices to benefit other members and vigilance against betrayal of the group from within.¹⁵⁵ As with aversion to harm, the formal category covers widely varying content. The groups that command loyalty, such as nations, are always partly imagined communities, formed out of “mystic chords of memory” as much as out of institutional, linguistic, and geographic facts.¹⁵⁶

The rise of conservation politics at the turn of the last century was closely tied to a particular version of patriotism. Theodore Roosevelt and other Progressives recast American civic identity for a time that, they believed, required a strong and extensive state.

153. See, e.g., Wilderness Act, 16 U.S.C. §§ 1131–1136 (2006) (protecting certain federal land designated as wilderness); Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2006 & Supp. IV 2011) (providing a program for the conservation of endangered plants and animals).

154. *Sierra Club v. Morton*, 405 U.S. 727, 743 (1972) (Douglas, J., dissenting).

155. See Haidt & Kesebir, *supra* note 145, at 822 (defining “ingroup/loyalty” as “[c]oncerns related to obligations of group membership, such as loyalty, self-sacrifice, and vigilance against betrayal”).

156. See generally BENEDICT ANDERSON, *IMAGINED COMMUNITIES: REFLECTIONS ON THE ORIGIN AND SPREAD OF NATIONALISM* (rev. ed. 2006). The quoted phrase, of course, comes from 2 ABRAHAM LINCOLN, *First Inaugural Address*, in *LINCOLN: SPEECHES AND WRITINGS 1859–1865*, at 215, 224 (1989).

Natural resources exemplified why regulation was necessary: without it, private greed would waste the national patrimony.¹⁵⁷ Hence, public administration of parks, forests, and other natural resources formed a paradigm for progressive regulation.¹⁵⁸ Expert administration for the benefit of the whole country across generations was the way to manage the American landscape and the country's economy and society as a whole.¹⁵⁹ To support these programs, citizens had to extend their civic identification to future generations and far-flung compatriots who, despite their distance in space and time, were interdependent in the same natural and social systems.

Public recreational areas, especially, parks, also became symbols of national identity. Parks advocates invited Americans to identify with emblems on the landscape that marked the continent as belonging to the nation.¹⁶⁰ Roosevelt's face on Mount Rushmore, begun well after his death, does with clanging literalness what a generation of parks advocates did more subtly and just as effectively: make public lands a touchstone of American civic identity.

Efforts to mobilize solidarity since the conservation developments of the Progressive era have been more indifferent in their results. Appeals to solidarity beyond the nation (to a "planetarian" identity) or the species (to Aldo Leopold's "land community") are better described as aspirational sketches than achievements.¹⁶¹ Because solidarity has been so important in earlier environmental developments, both lending itself to conservation and

157. See GIFFORD PINCHOT, *THE FIGHT FOR CONSERVATION* 48–49 (1910) ("The conservation idea covers a wider range than the field of natural resources alone. Conservation means the greatest good to the greatest number for the longest time. . . . Conservation advocates the use of foresight, prudence, thrift, and intelligence in dealing with public matters It proclaims the right and duty of the people to act for the benefit of the people. Conservation demands the application of common-sense to the common problems for the common good.").

158. See Purdy, *supra* note 74, at 189–99 (describing the paradigmatic place of natural-resource conservation within the larger reform agenda of Progressives of the late nineteenth and early twentieth centuries).

159. See IRVING FISHER, *REPORT ON NATIONAL VITALITY: ITS WASTES AND CONSERVATION* 2 (1909) ("[T]he problem of conserving our natural resources is part of another and greater problem—that of national efficiency. This depends not only on physical environment, but on social environment, and most of all on human vitality.").

160. See Purdy, *supra* note 74, at 205–06 (noting the absorption of civic and Romantic language into parks advocacy).

161. See ALDO LEOPOLD, *The Land Ethic, in A SAND COUNTY ALMANAC WITH OTHER ESSAYS ON CONSERVATION FROM ROUND RIVER* 217, 219–22 (1966) (describing and recommending an ethical embrace of "land-community"); Sarah A. Krakoff, *Planetarian Identity Formation and the Relocalization of Environmental Law*, 64 FLA. L. REV. 87 (2012) (discussing local efforts to put into practice moral identification with the planet).

taking energy from images of nature, it is nonetheless worth keeping well in view.

3. *Being Who One Is: Personal Ethics.* Environmental value has been closely involved with two ideas that are central to modern personal identity. These are *dignity* and *authenticity*.¹⁶²

Dignity encompasses qualities that command the respect of others and the sense of oneself as commanding that respect.¹⁶³ It was a centerpiece of the U.S. settler identity: the pioneer, a free man who freely labored on free land, was an admirable figure in a republican community of equals.¹⁶⁴ Using land and other resources productively became a touchstone of American dignity, particularly in its masculine versions, at a time when the traditional basis of dignity in social hierarchy was under pressure from rising democracy. Ever since, environmental value has been marked by many Americans' investment in being productive users of land and resources, not mere contemplative tourists or idlers.¹⁶⁵

Authenticity is being oneself, not someone else's image or a congeries of borrowed habits and styles.¹⁶⁶ It remains the heart of what many have pursued in the Romantic strain of environmental imagination: the wilderness or high country has long promised clarity about who one is, a liberation from the unreflective attitudes and habits of the lowlands.¹⁶⁷ A different version of environmental authenticity takes up the spiritual hopes of the age of ecology: reintegrating the self and the natural setting, recognizing that one is "really" continuous with a living world, not a monad cut off from it by the walls of body and mind.¹⁶⁸ In each case, the experience of value in

162. For an extremely valuable discussion of these ideas and their place in modern moral culture, see CHARLES TAYLOR, *The Politics of Recognition*, in *PHILOSOPHICAL ARGUMENTS* 225, 225–33 (1995).

163. See *id.* at 226–27 (tracing the roots of "due recognition").

164. See FONER, *supra* note 126, at 11 ("[T]he concept of 'free labor' lay at the heart of the Republican ideology . . ."); WOOD, *supra* note 126, at 358–62 (discussing the civic ideology of free soil and free labor).

165. See, e.g., Richard White, *Are You an Environmentalist or Do You Work for a Living?: Work and Nature*, in *UNCOMMON GROUND: TOWARD REINVENTING NATURE* 171 (William Cronon ed., 1995) (describing work-based antienvironmentalist populism).

166. See TAYLOR, *supra* note 162, at 228–29 (discussing the origin and development of the ideal of authenticity).

167. See Purdy, *supra* note 74, at 203–05 (discussing the cultural and psychological appeal of the Romantic attitude to nature, prominently including authenticity).

168. See *id.* at 210–14.

nature has been inseparable from the sense that nature puts one in touch with a clearer experience of oneself, a usable form of self-knowledge.

4. *Aesthetic Response and Ethics.* Aesthetic responses to nature power another type of moral experience. Aesthetic response involves qualities in objects, landscapes, and natural systems, and also the qualities of mind and emotion that these call forth. Aesthetics has not spoken to classically ethical questions—how to act, how to live among others—as strongly as it does to the value of nature, and the human relation to it, which aesthetic response seems to disclose.

The two most influential aesthetic experiences are *beauty* and *sublimity*. The late philosopher Bernard Williams nicely (and respectively) captured them thus: “Human beings have two basic kinds of emotional relations to nature: gratitude and a sense of peace, on the one hand, terror and stimulation on the other.”¹⁶⁹ Beauty, connected with “gratitude and a sense of peace,”¹⁷⁰ was a major preoccupation of early-modern aesthetic and psychological theory. Beauty is associated with landscapes and other natural objects that display regularity, gradual transitions, soft lines, and evidence of the mildness and fertility of a terrain that could support human life richly in answer to a modicum of work.¹⁷¹ Adam Smith, a perceptive moral psychologist and not the most poetic of souls, went so far as to identify beauty with mechanical design that lent itself to practical use.¹⁷² Despite the hint of inadvertent self-caricature in this example, beauty has never been far from usefulness: it describes harmony and fruitfulness, a sense of being at home in a place suited to human well-being.

Historically, beauty in nature has belonged to two rather different settings: the well-worked pastoral landscape, on the one hand,¹⁷³ and, on the other, the whole metaphoric house of Creation,

169. WILLIAMS, *supra* note 70, at 238.

170. *Id.*

171. See EDMUND BURKE, A PHILOSOPHICAL ENQUIRY INTO THE ORIGIN OF OUR IDEAS OF THE SUBLIME AND BEAUTIFUL 112–18 (James T. Boulton ed., Univ. of Notre Dame Press 1968) (1759) (describing what makes things beautiful); IMMANUEL KANT, THE CRITIQUE OF JUDGMENT 42–89 (James Creed Meredith trans., Oxford Univ. Press 1951) (1790) (describing the inputs and processes that determine beauty).

172. See SMITH, *supra* note 146, at 257–68 (distilling the perception of beauty down to the “appearance of utility”).

173. See RAYMOND WILLIAMS, THE COUNTRY AND THE CITY 13–45 (1973) (discussing the aesthetics and ideology of the pastoral).

viewed as a system made for the flourishing of every creature within it.¹⁷⁴ The former describes, in its most optimistic terms (often repeated in the cadences of Manifest Destiny) the settler project of making North America a garden, though the settlers were called to bring forth beauty through labor, not to enjoy a beauty already existing. The latter finds strong expression in what one might call the ecological pastoral: the image of a whole and harmonious earth, whose many systems interweave to sustain species and ecological communities. This aesthetic is a keystone of Rachel Carson's narrative of environmental apocalypse, Aldo Leopold's green-pastoral "land community," and every image of ecological balance and health in the environmental politics of the last forty years.¹⁷⁵

Sublimity involves a very different experience: not being at home, but instead being thrown into a world of alien character and overwhelming dimensions, a world potentially hostile, but, more basically, indifferent and—past a point—incomprehensible.¹⁷⁶ Sublimity has been associated with vast, uninhabitable settings that display nature's morally indifferent and physically threatening power: the ocean, sheer cliffs and great gorges, scree fields and ranges of alpine peaks, cataracts and whitewater rapids.¹⁷⁷ Interpreters have associated it, variously, with stimulating but safe terror; a purifying reminder of the free will that can overcome involuntary fear; and inspiring awe at the power of a world (and, often, a divinity behind it) beyond the scale of everyday humanity.¹⁷⁸ To put it in Biblical terms,

174. See WORSTER, *supra* note 80, at 3–55 (describing the love of reassuring order in the theological and scientific theories of nature that preceded modern ecology).

175. See CARSON, *supra* note 80, at 1 (describing as the unspoiled ideal "a town . . . where all life seemed to live in harmony with its surroundings"); LEOPOLD, *supra* note 161, at 219 ("All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. . . . The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively, the land.").

176. See BURKE, *supra* note 171, at 39–70 ("When danger or pain press too nearly, they are incapable of giving any delight, and are simply terrible; but at certain distances, and with certain modifications, they may be, and they are delightful . . ."); KANT, *supra* note 171, at 114 ("Sublimity, therefore, does not reside in any of the things of nature, but only in our own mind, in so far as we may become conscious of our superiority over nature within, and thus also over nature without us (as exerting influence upon us).").

177. See HANS HUTH, *NATURE AND THE AMERICAN: THREE CENTURIES OF CHANGING ATTITUDES* 87–104 (1957) (describing how ideas of sublimity came to be associated with specific features of the American landscape).

178. See BURKE, *supra* note 171, at 40 (calling "delightful" the awe associated with terror in the absence of real danger); KANT, *supra* note 171, at 109–14 (discussing sublimity and free will); MUIR, *supra* note 129, at 14 (encountering a sense of the divine in a sublime landscape).

if beauty bespeaks the God and Creation of Psalm 23, sublimity finds its alienating home in Job.¹⁷⁹ Sublimity is central to the Romantic strain in American environmental imagination, which has mainly emphasized its uplifting effect rather than its alienating power.¹⁸⁰

The third point where ethics and aesthetics intersect with respect to nature is *uncanniness*. Uncanniness refers to the bewildering experience of uncertainty about whether something is alive or conscious, another intelligence looking back at the watching person. The experience got its classic modern discussion in Sigmund Freud's meditation on the role of golem-like robots, doppelgängers, and ghosts in science fiction and fairy tales.¹⁸¹ Freud argued that these imaginary creatures represented the irruption into civilized adulthood of primitive, magical thinking, which was set aside but never quite abandoned when infants grew up and animist cultures matured into a scientific worldview.¹⁸²

Once we separate the idea of uncanniness from Freud's theories of history and the mind, we can see that, although it has been less central than beauty and sublimity to past developments in environmental values, it might matter greatly in the future. The idea of uncanniness captures a disorientation that can arise from knowing a pair of essential truths. On the one hand, we live in a world full of nonhuman points of view, experience, and consciousness; on the other, those are necessarily opaque to us, permanent mysteries. Their mystery, however, does not free us from making decisions that affect them, massively and often mortally. What blinks out of existence when an animal is slaughtered, what is the meaning of a gaze that looks back at us, of sounds we hear as expressing satisfaction or pain? That we do not know enough to answer these questions is the basis of

179. *Compare Psalms 23:1–2* (“The Lord is my shepherd; I shall not want. He maketh me to lie down in green pastures: he leadeth me beside the still waters.”), *with Job 3:6–9* (“As for that night, let darkness seize upon it; let it be not joined unto the days of the year . . . let that night be solitary, let no joyful voice come therein. . . . Let the stars of the twilight thereof be dark . . .”), *and id.* 9:5–8 (“Which removeth the mountains . . . which overturneth them in his anger. Which shaketh the earth out of her place, and the pillars thereof tremble. Which commandeth the sun, and it riseth not; and sealeth up the stars. Which alone spreadeth out the heavens, and treadeth upon the waves of the sea.”).

180. *See, e.g.,* MUIR, *supra* note 129 (gathering passages to this effect).

181. *See* SIGMUND FREUD, *The Uncanny*, in *THE UNCANNY* 121, 135–39, 141–43, 147–49 (Adam Phillips ed., David McLintock trans., Penguin Books 2003) (discussing life-like dolls, doubles, and ghosts, respectively).

182. *Id.* at 152–59.

uncanniness. That we have to act as if we did know is part of its ethical relevance.¹⁸³

The experience of the uncanny involves a sort of respect, but more complicated than the respect that is involved in the aversion to doing harm.¹⁸⁴ It is a pause in judgment that arises from a limit to perception and understanding: we know something is there, but we cannot say quite what it is. Our pause expresses the thought that we owe these other points of view some acknowledgement and consideration, even though we have no reliable way of calibrating that response.¹⁸⁵

Each aesthetic mode describes both a way of responding to a part of nature—an animal, a pastoral scene, a vast, fierce, and threatening terrain—and a possible attitude toward the natural world as a whole. As mentioned earlier, beauty has been the dominant attitude for certain contemplative theological schools, and also for practical programs of remaking wild nature in the model of a universal garden. Sublimity has been, for the strand of Romantic thinking associated with John Muir, the early Sierra Club, and the wilderness movement, the aspect of nature that matters most, the subsisting and powerful world that lies behind or beneath all that is settled and civilized, contradicting and saving us from a world made by hands and machines.

Uncanniness, in turn, describes its own way of seeing the world, one perhaps especially well suited to the age of ecology. Nature, seen in this way, presents an order that, on the one hand, we can follow intellectually through its vast complexity, and, on the other, always recedes beyond our understanding, into the depths of time and distance, into scales too small for us, and, above all, into complexity that outruns our minds. If we owe it respect, which is one of the basic thoughts of environmental ethics, this is in part because we can admire and see how we depend on its order. But there is also a note of respect that arises from acknowledging nature's mystery and a

183. See KYSAR, *supra* note 101, at 176–99 (relying on the concept of the uncanny in discussion of ethical relations to other forms of life, although not using the term itself); TIMOTHY MORTON, *THE ECOLOGICAL THOUGHT* 52–54 (2010) (discussing the ethical relevance of uncanniness).

184. See MORTON, *supra* note 183, at 52–54 (characterizing the experience of uncanniness). On the contrasting aversion to harm, see *supra* notes 146–154 and accompanying text.

185. See MORTON at 24 (“Archimedes said, ‘Give me somewhere to stand, and I shall move the Earth.’ The ecological thought says, ‘Give us nowhere to stand, and we shall care for the Earth.’”).

basic obscurity in our response to it. Embracing uncanniness implies confessing that we cannot say just what kind of respect we feel for a world we cannot ever quite know. Nature strikes us as being at once meaningful and merely factual, alive and simply a series of chemical and physical reactions, mattering in itself and mattering just because it is useful to us. Staying in the experience of uncanniness is a refusal to reduce this ambiguous experience to either side of the contrasts that form it, because the uncomfortable middle ground itself inspires a kind of respect.

5. *Acting, Being, and Seeing: Virtue Ethics.* Virtue ethics is often presented in moral philosophy as one theory of what the field is about.¹⁸⁶ In that sense, it is normative—a theory of the *right* way to understand moral deliberation and assessment.¹⁸⁷ The present discussion is not normative in that way. It is, rather, an essay on the varieties of moral experience, ways of registering and responding to value that have been important in the development of environmental imagination. Accordingly, the treatment of virtue ethics in this Section describes a mode of moral experience whose main features are well expressed in the theory of virtue ethics. The mode of moral experience that virtue ethics envisions has been important in developing environmental values, and may become more important in the future.

The central concern of virtue ethics is the character of individuals.¹⁸⁸ The relevant account of character is set within a larger picture of perception, decision, and social practice. Virtues are qualities of character that tend to produce actions of a certain kind.¹⁸⁹ The actions that a virtue supports constitute *practices*, forms of ongoing, usually shared, activity that contain standards of excellence,

186. See, e.g., BERNARD WILLIAMS, *ETHICS AND THE LIMITS OF PHILOSOPHY* 10–12, 49–53 (1985) (giving a sympathetic account of virtue theory as the right way to philosophize about ethics).

187. As a skeptic, Professor Williams doubted that virtue theory could have enough substance to guide actions without certain controversial metaphysical assumptions. *Id.*

188. See BERNARD WILLIAMS, *Acting as the Virtuous Person Acts*, in *THE SENSE OF THE PAST* 189, 189–95 (Myles Burnyeat ed., 2006) (stating that “[a] (fully) [virtuous] act is what a [virtuous] person would do, but only if it is done as the [virtuous] person does such a thing” and describing the manner in which a virtuous person does the act).

189. See *id.* at 193 (“We say that the agent did the generous (e.g.) thing because it was the generous thing to do . . .”).

ways of assessing one's participation as fine or shoddy.¹⁹⁰ Practices, in turn, help to make up forms of life and shared understandings of what constitutes a good existence. So, for example, the virtue of tending land and animals carefully could support the practice of sustainable farming and a form of life centered on ecologically responsible labor and a respectful approach to the natural world. Alternatively, the virtue of diligently seeking a source for each factual assertion one makes could support the practice of cumulative, accountable scholarship and the form of life of the modern research university, with its goal of adding to knowledge.¹⁹¹ It thus makes sense to envision virtues as basic elements in an emergent order, combining to constitute more complex practices and forms of life, and, in turn, taking some of their definition from the higher-level orders that they help to compose. A culture contains, from largest and most abstract to most local and concrete: shared understandings of value, the standards of excellence from which they emerge, the practices in which those standards operate, and the virtues that uphold these practices. Taken together, these make a culture a resource for those who are trying to judge how to live.¹⁹²

Today it would be more accurate to say that a culture contains competing ideas of how to live, overlapping understandings that some members share and others do not, and ideas of virtue that some embrace and others reject.¹⁹³ Although this cacophony of values contradicts some traditional ideas of virtue, it is quite consistent with treating the general structure of virtue theory as describing a mode of moral experience. In fact, disagreement, even a degree of cacophony, is essential to appreciating how the psychology of virtue ethics can contribute to the *change* in values that is the main concern of this

190. See ALASDAIR MACINTYRE, *AFTER VIRTUE* 187–91 (2d ed. 1984) (setting out the definition and working of practices).

191. Readers are invited to reflect on which of these examples they find more attractive.

192. See MACINTYRE, *supra* note 190, at 191 (“A virtue is an acquired human quality the possession and exercise of which tends to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such goods.” (emphasis omitted)). This point may sound abstract and fancy, but in fact it describes a good deal of human conduct: we want to be good at things we consider worth doing and being, and we understand that if we become good at these things we acquire qualities that are matters of character rather than simply of technical competence. These may include reflectiveness in writing, courage in argument, constancy in institutional and intellectual commitments, or a different set of virtues keyed to a less academic life than the one this sentence imagines.

193. See JEFFREY STOUT, *ETHICS AFTER BABEL: THE LANGUAGES OF MORALS AND THEIR DISCONTENTS* 191–92 (1988) (discussing ethical disagreement under conditions of radical pluralism).

discussion. A unified version of virtue would tend to be unchanging; its internal harmonies would not produce perturbation, innovation, or insurrection. A more diverse, inconsistent system of virtues, on the other hand, is the field in which new values can emerge.

Although virtue ethics is concerned with character, the motivation it imagines is not self-concerned in the way that commitment to one's dignity or authenticity can be. It is characteristic of virtuous conduct that one is not motivated to it by an ambition to *be* virtuous, but by the perception that courage, reflectiveness, or another quality of conduct fits the situation.¹⁹⁴ Being motivated by the aspiration to be a virtuous person would involve, in Professor Bernard Williams's phrase, "one thought too many" in a situation that called for courage.¹⁹⁵ The motivation envisaged in virtue theory, rather, is to respond appropriately to the circumstances in which one finds oneself.

Virtue is therefore connected with perception: the tendency to act in certain ways is integrally connected with seeing in certain ways.¹⁹⁶ It is because one experiences situations as containing certain values, and because those values are motivating, that one acts appropriately. That meaning is felt not as the product of inference but as the fruit of perception. Virtue ethics links seeing and action.

So described, it should become clear that virtue ethics is the mode in which some of the most influential environmental innovators worked. Thoreau's *Walden*¹⁹⁷ is an account of a sustained discipline aimed at producing linked ways of seeing and action. Thoreau's aim was to become a different kind of person: more self-aware, more alert to nature's patterns and his own, less occupied by the conventional

194. See WILLIAMS, *supra* note 188, at 189–97 (making this point and observing some of its difficulties for a theory of "moral realism," a theory that is not an issue in this discussion, which does not engage meta-ethical questions).

195. See BERNARD WILLIAMS, *Persons, Character, and Morality*, in MORAL LUCK 1, 18 (1981) (arguing for a different but related point, that moral explanation should speak to what makes life meaningful for the person, not to abstract canons of moral obligation).

196. See MARTHA C. NUSSBAUM, THE FRAGILITY OF GOODNESS 305 (rev. ed. 2001) ("Practical insight is like perceiving in the sense that it is non-inferential, non-deductive; it is, centrally, the ability to recognize, acknowledge, respond to, pick out certain salient features of a complex situation.").

197. HENRY DAVID THOREAU, WALDEN, in WALDEN AND OTHER WRITINGS 1 (Brooks Atkinson ed., Random House, Inc. 2000) (1854).

attitudes that he had half-consciously absorbed.¹⁹⁸ As he portrayed it, watching the natural world acutely helped him to know his own mind, and that, in turn, educated and reinforced his independence from social convention.¹⁹⁹ To enter into the book is to experience steady attention to one's surroundings as a form of moral education that should ultimately issue in a different set of dispositions. Thoreau, of course, did not invent this discipline—in one form or another, it is ancient and widespread—nor was he the first to tie it to the natural world.²⁰⁰ He did, however, produce the lasting literary memorial that later American innovators in environmental imagination took as their touchstone.²⁰¹

Thoreau's virtue does not require any stability or consensus in the surrounding moral culture. It is a minority position twice over: an odd innovation in its time, and also an account of virtue aimed at dissenters, or at least at individualists who are likely to be dissenters in any culture that prizes consensus. And so it appealed to those self-styled individualists who formed the Sierra Club, who reworked Thoreau's practice-of-one into a social practice.²⁰² Joining in that practice was inseparable from learning to feel awe at nature's sublime places and to treasure that experience—the virtue of aesthetic sensitivity that the club's members prized and cultivated.²⁰³ From its

198. *See id.* at 86 (“I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived. I did not wish to live what was not life . . .”).

199. *See id.* at 146–57 (describing Thoreau's cultivation of a bean field as a kind of reflective practice that, among other benefits, enabled him to gain a sense of the scale and diversity of the world and the multiple perspectives it contains).

200. *See, e.g.,* RALPH WALDO EMERSON, *The American Scholar*, in *THE ESSENTIAL WRITINGS OF RALPH WALDO EMERSON* 41, 44–46 (Brooks Atkinson ed., Random House, Inc. 2000) (1837) (“[T]o this schoolboy under the bending dome of day, is suggested that he and it [nature] proceed from one root; one is leaf and one is flower; relation, sympathy, stirring in every vein. And what is that root? Is not that the soul of his soul?”); WILLIAM WORDSWORTH, *The Fourteen-Book Prelude of 1850*, in *THE PRELUDE* 511, 515 (Jonathan Wordsworth ed., Penguin Books 1995) (1850) (“I beheld [in a sublime natural setting] the emblem of a mind/That feeds upon infinity, that broods/Over the dark abyss, intent to hear/ . . . a mind sustained/By recognitions of transcendent power . . .”).

201. *See, e.g.,* JOHN MUIR, *OUR NATIONAL PARKS* 1–3 (Univ. of Wis. Press 1981) (1901) (observing that Thoreau would not have needed the grandeur of the West for a full appreciation of nature, but acknowledging that most people who seek insight and solace in nature lack Thoreau's sensitivity).

202. *See Purdy, supra* note 86, at 1147–51 (detailing how the Sierra Club turned a literary conception of nature-based insight into a practice that became the basis of a “Romantic [s]ocial [m]ovement”).

203. *See id.* at 1150–51 (discussing the Sierra Club members' accounts of their experience on outings).

beginning as a literary and individual kind of virtue, Thoreau's model became a version of American moral identity, available as the basis of an ongoing practice.

There are other examples, notably the early ecologist and essayist Aldo Leopold, who plays an important role in Part IV. One could also go further back in time: the settlers who swept across the continent in the nineteenth century shared, in broad strokes, a way of seeing and responding to nature, a sense of what had to be done with respect to it (clearing and development!), and a set of shared practices that arose from these dispositions. The psychology and activity that virtue ethics describes, then, have often been at work in changing environmental values.

It is striking that although the ecological era has forced a new set of insights onto all areas of environmental concern, it has proved difficult to devise a conception of virtue that fits an ecological condition. The reasons for this difficulty, and the ways it might change, form some of the next Part's discussion of the frontiers where a new generation of environmental values may be taking shape.

IV. AN ENVIRONMENTAL LAW OF ETHICAL CHANGE: THREE APPLICATIONS AND THE CASE FOR ETHICAL CHANGE, REVISITED

In at least three areas of contemporary environmental law, there is new openness to changing values. These areas find people unsure of what to make of key encounters with the natural world, and experimenting in the face of that uncertainty. These experiments might produce a change in ethical vocabulary. They also present an opportunity to reflect on how law can foster, or inhibit, this ethical development.

A. *Food, Agriculture, and the Value of Work*

What is sometimes called the food movement swirls around diverse ideas and has no organizational center.²⁰⁴ It does, however, express definite values, new perceptions of people and nature that are

204. See Michael Pollan, *The Food Movement, Rising*, N.Y. REV. BOOKS, June 10, 2010, at 31 (reviewing five books on the topic and discussing the range of the movement); Bryan Walsh, *Foodies Can Eclipse (and Save) the Green Movement*, TIME (Feb. 15, 2011), <http://www.time.com/time/health/article/0,8599,2049255,00.html> ("What makes the food movement so unusual is that it's not a single national movement at all, it's a series of organized smaller mobilizations . . .").

strong enough to shape choices about how to live.²⁰⁵ The food movement comes from a picture of the world, and tries to square reality with that picture.

In the view of the food movement, some physical work, including cooking, gathering food, and raising livestock, is an affirmative source of satisfaction.²⁰⁶ One of the satisfactions of such work is *knowledge* of the ecological, chemical, and other processes that make the work a successful engagement with the natural world. Work done with this informed appreciation is qualitatively better than work that is less informed and comprehending, even if the latter may be more efficient if measured, for instance, by calories produced per unit of input.²⁰⁷

Another value for the food movement is work that preserves, even enhances, natural processes, rather than tending to exhaust them.²⁰⁸ This value implies embracing an integrated agriculture that returns crop and animal waste to the soil to preserve the cycle of fertility. It also means lamenting the *industrial* farming that makes animal waste a water pollutant while, at the same time, drawing soil fertility from chemical fertilizers that must be separately manufactured and, in some cases, literally mined to replace the fertility lost through discarded animal waste.²⁰⁹ To boot, rainfall washes artificial fertilizer off of fields as water pollution. These contrasting images of farming are paradigms of two kinds of systems: a virtuous one that maintains a sustainable cycle of life and a vicious one that supports itself by offloading waste onto other systems—such as polluted waterways—while drawing its sustenance from often harmful sources such as mining. These contrasts can also matter to those who use but do not grow their food, which is, of course, the more common experience. Knowing the food's source and how it was grown can be near the heart of the satisfaction one takes in it.

The food movement represents a new attitude in environmental values. Although American history has seen intermittent back-to-

205. See generally WENDELL BERRY, *THE UNSETTLING OF AMERICA: CULTURE & AGRICULTURE* (1977). This book has been a touchstone for two-plus generations of innovators around farming and food.

206. See *id.* at 138–40 (seeing labor to produce food as a positive good).

207. See *id.* at 87, 138 (“In gardening, for instance, one works with the body to feed the body. The work, if it is knowledgeable, makes for excellent food.”).

208. See *id.* at 85–86 (discussing the value of agriculture that returns its sources of energy and fertility to the soil that first produced them).

209. Cf. *id.* at 136–37 (stating that industrial agriculture “transforms fertility into pollution”).

nature movements, the shapers of environmental imagination usually saw farmers as figures of plodding utilitarian labor. Thoreau portrayed his neighbors as slaves to their land, labors, and conventional ideas.²¹⁰ Emerson complained that the poet's satisfaction in a landscape was ruined by the sight of farmers working on it.²¹¹ When Thoreau famously reflected on hoeing weeds in his bean field at Walden Pond, he concluded that his next harvest should be left entirely for the birds.²¹² As for eating, he wrote the most ascetic and self-revolved passages of *Walden* on repugnance at the body's need for nutriment.²¹³ John Muir took as a foil a dirty shepherd who was resolutely obtuse to the wonder of the Sierra Nevada.²¹⁴ Moving from the shapers of environmental imagination to the laws they helped inspire, it is telling that statutorily protected wilderness is devoted to scenery and strenuous recreation—admiring the landscape and powering one's own way across it—to the complete exclusion of procuring food. The wilderness movement worked to preserve conditions for the most elemental human transactions with nature, but left eating out of that picture. Wilderness is a place where there is much life but nothing to eat.

The great departure from all of this discomfort over food came with Aldo Leopold, author of *A Sand County Almanac*²¹⁵ and such touchstone essays as “The Land Ethic”²¹⁶ and “Round River.”²¹⁷ Leopold was a seminal wilderness advocate, an equally important formulator of an ecological ethic, and deeply interested, as both a practical and a literary matter, in restoring worn-out farmland through responsible labor. Leopold united these themes in

210. See THOREAU, *supra* note 197, at 4–6 (“Most men . . . through mere ignorance and mistake, are so occupied with the factitious cares and superfluously coarse labors of life that its finer fruits cannot be plucked by them.”).

211. See RALPH WALDO EMERSON, *Nature*, in THE ESSENTIAL WRITINGS OF RALPH WALDO EMERSON, *supra* note 200, at 1, 33–34 (“[Farming] may show us what discord is between man and nature, for you cannot freely admire a noble landscape if laborers are digging in the field hard by.”).

212. THOREAU, *supra* note 197, at 146–57.

213. See *id.* at 201–08 (deploring sensuality in eating as in other appetites and calling for self-purification).

214. See MUIR, *supra* note 129, at 29–30 (contrasting the divinity-infused landscape of the Sierra Nevada with the uncomprehending shepherd who accompanies him there).

215. ALDO LEOPOLD, *A Sand County Almanac*, in A SAND COUNTY ALMANAC WITH OTHER ESSAYS ON CONSERVATION FROM ROUND RIVER, *supra* note 161, at 1.

216. LEOPOLD, *supra* note 161, at 217.

217. ALDO LEOPOLD, *The Round River*, in A SAND COUNTY ALMANAC WITH OTHER ESSAYS ON CONSERVATION FROM ROUND RIVER, *supra* note 161, at 175.

preoccupation with how people could *participate* in the natural world with full awareness of its processes and the aim of improving what he called its “integrity, stability, and beauty.”²¹⁸ Writing in the same vein almost three decades after Leopold’s untimely death, Wendell Berry, a muse for the food movement, took up the same themes more elaborately. Berry argued in 1977 that “the ecological crisis” was also “a crisis of agriculture,” because the move from integrated to extractive farming, and from producing food to consuming it, marked a larger divorce from sustainable interaction with the natural world, in which an extractive and quantifying attitude replaced a preservative and qualitative one.²¹⁹ Berry’s argument contributed a set of contrasts in value: he cast different approaches to farming and food as emblems of different ways of living on earth.

This new, ecological interest in food and agriculture offered a solution to a puzzle that was implicit in post-1970 environmental thought and, as Leopold’s writing implied, in any effort to think ecologically. An environmental ethic that people can live by seems to need one of two features. On the one hand, it could meld its values to practices or commitments already in place. This goal is roughly what the conservation politics of Theodore Roosevelt and his chief forester and conservation theorist, Gifford Pinchot, accomplished at the turn of the last century.²²⁰ They made patriotic concern for the long-term well-being of the whole country into an ally of public-lands conservation by arguing that, without such conservation, the United States would exhaust critical resources.²²¹ On the other hand, an environmental ethic could offer a new practice and identity, a way of interacting with the natural world and an image of one’s self in that encounter, that its adherents can follow. The high-country pilgrimages of the Sierra Club and its successors in the wilderness movement give an example of the second kind of change.²²²

The post-1970 wave of environmental ideas and lawmaking took the first path by presenting industrial pollution as a public-health

218. LEOPOLD, *supra* note 161, at 240; *see also* LEOPOLD, *supra* note 217 at 179–87 (arguing for an ecological view of agriculture focused on the sustainable health of the land over generations, which would “harmonize the wild and the tame” in contrast to “clean farming . . . aimed solely at economic profit and purged of all non-conforming links”).

219. *See* BERRY, *supra* note 205, at 27, 41–48 (describing how agricultural practice and cultural value are indissolubly linked).

220. *See supra* Part III.C.2.

221. *See supra* Part III.C.2.

222. *See supra* Part III.B.

crisis and threat from runaway technology—hazards that the country knew how to fear and, in some measure, how to manage. The more affirmative values that many commentators linked to ecological consciousness, though, were elusively abstract. As a way of thinking and seeing, ecological consciousness stood to change everything and nothing. It implied a new view of nearly every action and phenomenon, by virtue of the complex chains of interdependence that carried their effects; but it suggested little that individuals might do to reflect awareness of this interdependence in their everyday activity.

The new environmental laws thus did little to secure new modes of practice. Working at the scale of the industrial economy—power-plant emissions, fuel-efficiency standards, pre-use review of toxins, and ambient pollution standards—these laws made their changes invisible from the point of view of anyone outside the regulated industries. There was popular appetite for “ecological” values, but the new laws hardly helped to make such values concrete in personal life.

The food movement’s ideal—knowledgeable, sustainable work that joins in ecological processes—seems as concrete a response to this problem as we are likely to see. Part of this ideal’s attractiveness is that it creates a lived way to make abstract ecological values one’s own, to participate in an ecological view of the human place in the world.

This ecological image of food is new, not just in environmental values, but also in public policy. It is different from the standard case for reforming farm policy, which stands on CBA and environmental economics. That case concentrates on the polluting side effects of fertilizers, pesticides, and fossil fuels.²²³ That more familiar argument sets out how federal subsidies, especially of corn and soybeans, shape farming practice and the national diet, with cascading health costs and environmental harms.²²⁴ These well-established complaints are part of the food movement’s motive, but they are not the whole. The ecological ideal that I have been describing makes knowledgeable,

223. See JASON CLAY, *WORLD AGRICULTURE AND THE ENVIRONMENT: A COMMODITY-BY-COMMODITY GUIDE TO IMPACTS AND PRACTICES* 45–62 (2004) (quantifying the environmental effects of present agricultural practices).

224. *Id.*; see also MICHAEL POLLAN, *THE OMNIVORE’S DILEMMA* 100–08 (2006) (discussing the adverse effects of agricultural policy on diet and health); PAUL ROBERTS, *THE END OF FOOD* 82–109 (2008) (describing obesity effects of the food economy); *id.* at 175–204 (listing pathogens associated with industrial agriculture).

sustainable work in natural processes a freestanding value, a reason to pursue a food economy that fosters such work.

What meaning does this perspective have for the law? Law's role in shaping the food economy is widely recognized, for instance, in the federal subsidies that promote the production of corn, soybeans, and other commodity crops. A large share of subsidies goes to very large producers, effectively discouraging the smaller-scale farming that makes personal, physical engagement viable and can reward integrated, multicrop operations over single-crop production.²²⁵ Relatively lax implementation of antipollution laws in agriculture gives an advantage to large operations whose feedlots and warehouses full of cattle, pigs, and chickens produce lagoons of semiliquid, off-gassing waste.²²⁶ Regulations permit the use of low, "sub-therapeutic" doses of antibiotics to enable these dense animal populations to survive without epidemics, even though the practice risks breeding antibiotic-resistant strains of animal diseases and, perhaps, bugs that also sicken people.²²⁷ Small farmers face interlinked logistical and regulatory bottlenecks: slaughtering facilities are often far from farms, meaning travel, fuel use, and animal stress at the last stage of raising meat.²²⁸ This bottleneck is difficult to widen partly because of the small number of federal health-and-safety inspectors, itself a government accommodation of industry consolidation that was expected to be irreversible.²²⁹ In sum,

225. See generally Neil D. Hamilton, *Reaping What We Have Sown: Public Policy Consequences of Agricultural Industrialization and the Legal Implications of a Changing Production System*, 45 DRAKE L. REV. 289 (1997); Doug O'Brien, *Policy Approaches To Address Problems Associated with Consolidation and Vertical Integration in Agriculture*, 9 DRAKE J. AGRIC. L. 33 (2004).

226. See Kate Celender, *The Impact of Feedlot Waste on Water Pollution Under the National Pollutant Discharge Elimination System (NPDES)*, 33 WM. & MARY ENVTL. L. & POL'Y REV. 947 (2009) (surveying the deficiencies in the current NPDES system and the regulation of feedlot lagoons and sprayfields).

227. See, e.g., JONATHAN SAFRAN FOER, *EATING ANIMALS* 123–43 (2009) (describing disease threats associated with confined agriculture); POLLAN, *supra* note 224, at 173–83 (identifying the use of antibiotics as a keystone of confined animal feeding operations).

228. For discussions of regulatory and infrastructure bottlenecks that impede small and unconventional farmers, and of possible reforms, see generally Neil D. Hamilton, *Moving Toward Food Democracy: Better Food, New Farmers, and the Myth of Feeding the World*, 16 DRAKE J. AGRIC. L. 117 (2011); Michael Pollan, *Farmer in Chief*, N.Y. TIMES MAG., Oct. 12, 2008, at A62.

229. See, e.g., David Ferry, *Slaughterhouse Shortage Stunting Area's Eat-Local Movement*, N.Y. TIMES (Apr. 8, 2011), <http://www.nytimes.com/2011/04/08/us/08bcslaughterhouse.html> (describing the slaughterhouse shortage as a bottleneck in local meat production).

the law systematically favors industrial-scale production and disfavors the sort of farming that the food movement celebrates.

Are these reasons to change the law? It depends. On standard CBA analysis, it depends on the bottom line. Various defenses of industrial agriculture vindicate one aspect or another as less resource intensive than the smaller and more participatory farming that the food movement embraces.²³⁰ Even when industrial produce travels halfway around the world, economies of scale may make it more energy efficient than small, local production.²³¹ The food movement's case for small-scale, labor-intensive farming sometimes piggybacks on CBA and environmental economics, but the positions turn on quite different values, and they have different results.

If one starts from the ecological ideal, then thinking of agriculture solely in standard cost-benefit terms can seem misplaced—much as the nineteenth-century expectation of privatizing and developing the entire continent seemed misguided in the early twentieth century, in light of then-new movements for national parks and other public recreational land. The older perspective, with its sole emphasis on development, lost force when many Americans accepted that Romantic-style engagement with nature was worth promoting through federal policy.²³² If farming offers its own experiential value, the case for reversing the law's bias toward large and specialized production stands on its own, rather than depending on standard CBA. That does not mean that the ecological ideal must prevail, of course; but its grounds are its own, not derivative of other values.

On this view, agricultural policy is, in a serious sense, cultural policy, like establishing national parks. Parks policy is an investment in a relation to nature. It generates thinking about humanity's place in the world. Similarly, agricultural policy that supports small-scale, participatory food raising would be an investment in developing environmental ethics.

This discussion does not make a decisive case for these policies. That case would have to be cultural and democratic, in any case, not theoretical. It does, however, set out some features of the ecological

230. See, e.g., *Voting with Your Trolley*, *ECONOMIST*, Dec. 7, 2006, at 73 (setting out the environmental superiority of some industrial food produced far from where it is consumed over locally grown food).

231. See *id.* at 75 (stating that food grown in Spain or New Zealand is sometimes an environmentally superior choice for British consumers as compared to locally grown food).

232. See Purdy, *supra* note 74, at 178–88, 199–206 (detailing the respective influence of these two views of nature and how the later partly displaced the earlier).

ideal of agriculture and suggest which policies would have to change to support that ideal.

B. Animals and the Ethics of Encounters Across Species

As noted earlier, environmental ethicists run into a difficulty in thinking about the moral status of animals. If animals matter as individuals, then recognizing their importance might demand that we dramatically change our ways; animal suffering is part and parcel of our food economy.²³³ If, instead, animals matter as “part of nature,” then their suffering might seem as natural as their existence.²³⁴ Why should our factory farms count as less “natural” than other predators’ use of the species they eat?

If we set aside the conceptual difficulties, we find that most of the ethical attention centers on a core of situations in which these dilemmas may seem less vexing. In this case, humans exercise comprehensive control over the conditions of other species. These situations—we can take the factory farm as just one example—are thoroughly artificial: we made them.²³⁵ We create and control the suffering of animals in these settings, and that fact is the prompt for ethical reflection. To call whatever we do to these animals “natural” would be to give up on ethical reflection altogether; and to imagine that reflecting on our own behavior must mean condemning lions and predatory insects would be far too quick and casual. In short, we should not ignore the conceptual dilemma, but high-level value theory should have no veto on our ordinary ethical thinking.

The debate over the treatment of animals is deep and important.²³⁶ Arguments against factory farming and meat eating imply that many Americans are engaged in a massive violation of

233. See, e.g., Cahen, *supra* note 77, at 114–23 (setting out the case that on even modestly individualistic premises, it is very difficult to ascribe moral importance to a “whole” such as an ecosystem); Varner, *supra* note 78, at 95–104 (setting out this basic tension).

234. See Sagoff, *supra* note 73, at 62 (“The misery of animals in nature . . . makes every other form of suffering pale in comparison.”); *supra* note 76.

235. Artificiality should not be opposed categorically to nature: indeed, much of the reason for the troubled character of the distinction is that human nature is partly that of *homo faber*, the fabricator, or maker. Surely part of the point of any environmental ethics is to think through taking responsibility for this maker’s power, and so the thought that it would make sense to pass off any and every form of domination over other species as “natural” seems a sign that something has gone wrong.

236. See PETER SINGER, ANIMAL LIBERATION 1–24 (1975) (setting out the argument for equality of moral concern for animals based on suffering).

basic morality.²³⁷ There are two prominent approaches to this issue, with markedly different implications. The first view is broadly abolitionist, contending that there is no moral defense for most of the present human use of animals, and that we should stop taking their flesh, hides, and lives.²³⁸ The second approach is *reformist*: it seeks to renovate human relations with animals while preserving extensive domestication and/or meat eating.²³⁹

The most visible recent reformist proposal comes not from a philosopher or a lawyer, but from the journalist Michael Pollan. In *The Omnivore's Dilemma*,²⁴⁰ Pollan argues for a version of animal husbandry in which animals enjoy extensive freedom to move around and use their bodies, inhabit nonindustrial, classically pastoral settings, and live lives suitable to their species—albeit briefer versions—until they go to slaughter.²⁴¹ One important strut of this argument is that most domesticated species would not exist at all in a world without farming.²⁴² Therefore, the argument goes, it would be paradoxical to say that respect for members of these species requires abolishing farming, given that the species would then not exist at all. Any acceptable ethical standard must thus be compatible with extensive domestication and use of animals.²⁴³ Pollan's position excludes factory farming, which denies animals nearly all spontaneous activity, appears to traumatize some species, and reduces individuals to a caloric production function.²⁴⁴ It embraces neo-traditional farming of the kind that Pollan, Whole Foods and similar enterprises, and the food movement have done much to publicize.²⁴⁵ It is only a little bit cynical to observe that this ethics appeals especially to those

237. See *id.* at 94–158 (detailing farming practices as a massive violation of morality).

238. See GARY L. FRANCIONE & ROBERT GARNER, *THE ANIMAL RIGHTS DEBATE: ABOLITION OR REGULATION?* 1–102 (2010) (setting out the case for abolition of human exploitation of nonhuman animals).

239. See *id.* at 103–74 (setting out the case for reform rather than abolition of human-animal exploitation).

240. POLLAN, *supra* note 224.

241. See *id.* at 304–33 (arguing for an Aristotelian approach to the treatment of domestic animals).

242. *Id.* at 320–21.

243. See *id.* at 319–25 (arguing that domestication developed to reflect the preferences and best interest of animals as well as humans).

244. See *id.* at 317–19 (describing the American factory farm, in which “[a]nimals are treated as machines—‘production units’—incapable of feeling pain”).

245. See *id.* at 332–33 (promoting transparency in the farming industry, so that individuals can understand where their meat comes from and choose to purchase meat from more humane farms).

who enjoy and can afford meat raised under the conditions it recommends.

Despite its appeal, this approach has several problems. Why should the fact that these species depend on us for their survival entitle us to eat them? Why not say instead, just as logically, that we are responsible for what we have made? This essential part of the reformist argument looks rather too much like the dubious stratagem of calling natural whatever is already happening, including the very thing we set out to assess: if we coevolved with cattle and pigs through exploitation, does that make exploitation immune to ethical scrutiny? Surely not, any more than pervasive social practices such as slavery and gender segregation should be immune because they are widespread in human history.

There are other difficulties. Even accepting Pollan's standard in the abstract, has an animal lived a life appropriate to its species when it faces slaughter at a fraction of its natural life? The same question applies to the castration of most domesticated male mammals, a practice that forecloses certain characteristic activity even though it leaves individuals free to enjoy sunshine and mud.²⁴⁶ The obvious appeal of Pollan's position is that it proposes to reconcile persistent and opposite impulses: to continue our accustomed relations to other animals and to check some of the palpable enormities of those relations. Whether it succeeds is less clear.

The point of this discussion, though, is not to decide between reform and abolition. Rather, it is to identify a commonality between the two that points the way to a different approach. Both reformism and abolitionism confidently ascribe specific moral significance to animals. An abolitionist might find astonishing—to put it charitably—Pollan's confident judgment about what it is like to be a pig; but the abolitionist, too, has a definite view about the same issue, albeit one that displays polemical clarity rather than cloying sympathy. Each side has concluded judgment on a question that—as the continuing dispute among thoughtful people is enough to show—has not been concluded in the larger ethical, political, and legal argument.²⁴⁷

246. *Cf. id.* at 316 (arguing that castration implies little suffering for animals that lack language and self-consciousness, since the pain itself is brief).

247. For a finely expressed exploration of this continuing cultural irresolution on the question, see generally FOER, *supra* note 227, which engages with sympathetic imagination a range of perspectives on the book's title topic of eating animals.

The continuing dispute reflects the difficulty of interpreting animal experience, which we cannot know except through speculation, and which almost certainly is very different from ours. This confrontation with animals' unknowable experience can conjure up uncanniness, the bewildering experience of not knowing another's consciousness, or even whether another consciousness is present at all. To experience uncanniness in the face of an animal is to be right up against a question—what is this other creature's experience?—that will not resolve itself into one clear answer. In that position, we might hope to learn something from our acknowledged confusion.²⁴⁸

Law might make this problem more palpable and so, perhaps, more generative. The public argument around practices like factory farming is inhibited by concealment of the practice itself, an enforced invisibility that collaborates with the human tendency to avoid what is unpleasant. Access to confined feeding operations and slaughterhouses is severely restricted, and the reports of those who seek it, including this author, suggest that access policies are even stricter in action than on the books.²⁴⁹ There is every self-interested reason for livestock operations to take this stance. Today, as when Upton Sinclair wrote *The Jungle*,²⁵⁰ debates about meat tend to arise from triumphs of muckraking.²⁵¹ Even Peter Singer's touchstone philosophical argument, *Animal Liberation*,²⁵² uses vivid reportage to argue for the ethical importance of animal suffering.²⁵³ Reflection in this area seems to arise, in important part, from being confronted with what we have managed to avoid. Whoever favors things as they are thus has a strong interest in maintaining a culture of concealment and avoidance.

248. See KYSAR, *supra* note 101, at 176–99 (examining how humans understand the existence and subjectivity of animals, and the effect of this understanding on the human-animal relationship); MORTON, *supra* note 183, at 52–54 (discussing the ethics of the uncanny in encounters with nature).

249. See FOER, *supra* note 227, at 81–94 (discussing thwarted attempts to visit factory farms by permission, followed by a clandestine trespass into one); ERIC SCHLOSSER, *FAST FOOD NATION* 169 (2001) (describing an illicit visit to a slaughterhouse). I, too, have visited an industrial slaughterhouse, also smuggled in, after being denied official permission.

250. UPTON SINCLAIR, *THE JUNGLE* (Russ Castronovo ed., Oxford Univ. Press 2010) (1906).

251. See SCHLOSSER, *supra* note 249, at 169–78 (describing a slaughterhouse); SINCLAIR, *supra* note 250 (portraying the lives of immigrant laborers in the meat industry).

252. SINGER, *supra* note 236.

253. See *id.* at 95–158 (describing practices on factory farms).

That culture has a legal infrastructure. The concealment of industrial feeding and slaughter operations rests on the property right of exclusion—the power to keep others out of the place one owns. The most straightforward way to foster reflection on how we use animals would be to create a “right to know” the sources of one’s food. This could mean a right of public access, under controlled conditions, to industrial food operations.²⁵⁴ Depending on considerations of safety and convenience, physical access could be supplemented or replaced outright by video technology. Slaughterhouses might be required to admit film crews producing publicly available documentaries or simply to install web cameras. Labeling requirements for meat could include the web address where buyers could look inside the facilities where the animal was raised and slaughtered.

Such a public-access right would resemble transparency requirements in other areas of law. For example, the Toxics Release Inventory,²⁵⁵ which requires industrial facilities to disclose their toxic emissions, has been generally celebrated for inspiring public pressure to drive down emissions.²⁵⁶ Disclosure requirements in financial regulation and corporate governance are standard ways to improve actual markets’ approximation to the ideal of perfect information.

The big difference is that here the information that would come out of the slaughterhouses is useful not just for pursuing established goals, such as profit or a certain level of clean air. Instead, whatever insight can come from inside a slaughterhouse would feed into the formulation of goals, or, put differently, the development of values. This is another instance of law’s shaping of the experience in which ethical change happens. A public-access right, like support for neo-traditional agriculture, would represent a kind of cultural policy, support for ethical development inspired by experience. One might think of it as a legal subsidy for ethically relevant experience.

This proposal aims at industrial operations, but there are other ways to encourage exposure to how we use animals. For smaller-scale

254. See POLLAN, *supra* note 224, at 332–33 (suggesting, somewhat fancifully, that the walls of slaughterhouses be replaced with glass).

255. Emergency Planning and Community Right To Know Act, 42 U.S.C. §§ 11001–11050 (2006) (establishing mandatory public disclosure of toxic releases).

256. See Archon Fung & Dara O’Rourke, *Reinventing Environmental Regulation from the Grassroots Up: Explaining and Expanding the Success of the Toxics Release Inventory*, 25 ENVTL. MGMT. 115, 120 (2000) (arguing that the mandatory information release facilitates democratic engagement with toxics issues).

and neo-traditional operations, providing public access might be a condition of participating in support policies, or it might just be required outright. Outside the industrial setting, such observations would test by experience Pollan's argument that the right kind of farming can produce an ethically attractive relation between people and animals.²⁵⁷

These proposals are connected with the uncanny because they aim to make concrete the enigma of another animal's experience, suffering, and death. Meeting that enigma firsthand is one way of enriching the basis for judgments about how to treat members of other species. Much as encounters with nature's most dramatic and severe settings once struck members of the Sierra Club and Wilderness Society as cultivating a sense of the sublime in nature, encounters with everyday violence might be valuable now in learning to assess the things we already do but tend not to see. The question of nature's value here is an open and ongoing one, whose development law can help or impede.

C. *Climate Change, Rationality, and Vision*

Climate change is an especially hard problem to address effectively. It seems even harder when viewed through standard accounts of how rational people make decisions and the problems they encounter when trying to solve problems together.²⁵⁸ Because climate change is a wickedly complex global problem with a very long clock, the benefits of doing anything to stop it are uncertain and, if they materialize, will often help only people far away and, often, far in the future.²⁵⁹ The costs of doing something about it, by contrast, tend to come quickly, be fairly concrete, and affect the person trying to solve the problem. In the language of rational-actor theory, climate change produces externalities large enough to swamp internalized effects; it threatens to become the collective-action problem that ate the planet.²⁶⁰

257. See POLLAN, *supra* note 224, at 333 (noting the desirability of public knowledge of slaughtering practices).

258. For a fine introduction to these issues, see generally RICHARD TUCK, *FREE RIDING* (2008).

259. See STEPHEN M. GARDINER, *A PERFECT MORAL STORM: UNDERSTANDING THE ETHICAL TRAGEDY OF CLIMATE CHANGE* 24–48 (2011) (setting out these dynamics).

260. See Purdy, *supra* note 86, at 1134 (“Within any political cycle, it is highly likely that the costs of a serious mitigation effort will outweigh the benefits, even setting aside the inevitably speculative character of benefits measured in nonevents.”).

All of this is well-trodden ground for those who spend time thinking about environmental policy. My interest here is related but different. It is whether climate change also confounds standard ethical concepts, and, if so, what sort of innovation might make ethical sense of its challenges. There is good reason to think that familiar ethical frameworks run aground on climate change. To the extent that they do, making progress on the issue might imply changing our ethical vocabulary. This is not a matter of neat, step-by-step engineering—change values, then solve problem; that is not how these things happen. Rather, we should be alert to ways that the practical effort to address climate problems may move ethical vocabularies in ways that, in turn, make practical effort more viable.

A good deal of the climate debate has concerned questions of justice and responsibility among individuals and nations: who bears responsibility for the harm of climate change, to whom is the responsibility owed, what kind of recompense is appropriate, and what is the baseline from which harm is to be measured? Some argue that the complexity of climate change confounds ethical judgment on these issues: contributions to the problem are so dispersed that it is effectively impossible to say who, or which nation, or which industry, “caused” what effect; similarly, because the climate system is always changing and human-caused disturbances interact with underlying natural dynamics, it is impossible to set an uncontroversial “baseline,” to say that any given storm, drought, or other harm would not have happened without human cause.²⁶¹ Others respond that the questions, though difficult, are tractable—though they do not agree on the answers.²⁶²

261. See Dale Jamieson, *Ethics, Public Policy, and Global Warming*, in CLIMATE ETHICS 77 (Stephen M. Gardiner, Simon Caney, Dale Jamieson & Henry Shue eds., 2010) (“There are three important dimensions along which global environmental problems such as those involved in climate change vary from the paradigm [that is, from the cases for which our value system is most well suited]: apparently innocent acts can have devastating consequences, causes and harms may be diffuse, and causes and harms may be remote in space and time.”); see also Steven M. Gardiner, *A Perfect Moral Storm: Climate Change, Intergenerational Ethics, and the Problem of Corruption*, in CLIMATE ETHICS, *supra*, at 87, 88 (“Climate change is a truly global phenomenon. Emissions of greenhouse gases from any geographical location on the earth’s surface enter the atmosphere and then play a role in affecting climate globally.”).

262. See PETER SINGER, ONE WORLD: THE ETHICS OF GLOBALIZATION 35–36, 43–49 (2002) (arguing for equal global per capita claims on the atmosphere, which would imply significant redistribution on imagined greenhouse-gas markets); Eric A. Posner & Cass R. Sunstein, *Climate Change Justice*, 96 GEO. L.J. 1565, 1572 (2008) (arguing that concepts of distributive and corrective justice fit climate change poorly). *But see* Eric A. Posner & Cass R.

The questions for environmental ethics have different content but some of the same structure. What kinds of specifically environmental values are involved in climate change? Does climate change confound these? If so, can we imagine reformulating these values, or developing new ones, in a way that would help make sense of the problem?

An overlapping set of issues applies both to the questions of justice that I just sketched and to these environmental-ethics problems. As described in the earlier discussion of harm aversion, basic perceptions of wrong and harm are connected with palpable $A \rightarrow B$ transactions such as hitting another person or pushing someone from a bridge into harm's way.²⁶³ Perceptions of harm weaken as the effect of one's action becomes less direct and corporeal. Even throwing a switch to cause harm "indirectly" excites less aversion than touching another's body, and complex causal relations soon exhaust the power to excite the spontaneous sense that harm has been done.²⁶⁴ Little wonder, then, if climate change can proceed without stirring much sense that anyone is doing any harm. Greenhouse-gas emissions by billions of individuals across the last several centuries produce a globally dispersed, systemic change that intensifies certain atmospheric processes in a terrifically complex global phenomenon, all against a naturally unstable baseline.²⁶⁵

But is climate change really different? Massive complexity marks many of the other problems that concern environmental ethics, such as air and water pollution and the effects of toxins. Though this complexity is real, climate change takes it to a new level of intensity. Because of this unique complexity, ethical appeals that have worked to organize our sense of other complex environmental problems may be less effective here.

Begin with the paradigm of much of modern environmental law: in a classic environmental problem, "pollution" introduces a harmful, alien agent to an otherwise healthy system, sickening animals and

Sunstein, *Should Greenhouse Gas Permits Be Allocated on a Per Capita Basis?*, 97 CALIF. L. REV. 51, 55 (2009) (arguing against the per capita system on both welfare and fairness grounds).

263. See Haidt & Kesebir, *supra* note 145, at 822.

264. See Greene, *supra* note 145, at 344–46 (discussing the results of experiments that deal with moral dilemmas in situations with varying degrees of directness); Greene et al., *supra* note 149, at 2106–07 (utilizing experiments to demonstrate the "personal-impersonal distinction").

265. See DAVID ARCHER & STEFAN RAHMSTORF, *THE CLIMATE CRISIS: AN INTRODUCTORY GUIDE TO CLIMATE CHANGE* 16–38 (2010) (setting out the basic science of the problem).

people and weakening the underlying system.²⁶⁶ This simple narrative recurs throughout Rachel Carson's *Silent Spring*,²⁶⁷ a taproot of the environmental imagination in the age of antipollution statutes. It captures most of the public discussion around those statutes: human effluents were seen as violating the order of a clean world, making it unhealthy and unsafe.²⁶⁸

Many of the pollutants of classic environmental problems are synthetic or, at least, novel when industrial processes introduce them into ecosystems in large amounts. Moreover, they are generally toxic, or at least harmful, when individuals are exposed to them. In these ways, traditional pollution has always had elements of a familiar kind of harm: violation of a vivid baseline (nonviolence, nonpollution) and fairly immediate harm to individuals.

Climate change is different. The major greenhouse gases, notably carbon, are already pervasive in the atmosphere, and their processing is part of global cycles integral to life as we know it.²⁶⁹ Moreover, they do not, by themselves, harm individuals by exposure in concentrations remotely resembling their present atmospheric levels. Even if exposure to toxics at subacute levels increases only the probability of illness, an abstract and statistical harm, it does so in a more direct way, traceable to a more marked departure from a

266. This description smacks of a “foundation” of environmental ethics that Professor Jonathan Haidt calls “purity/sanctity,” a motive that encompasses “[c]oncerns about physical and spiritual contagion, including virtues of chastity, wholesomeness, and control of desires.” Haidt & Kesebir, *supra* note 145, at 822. As Professor Mary Douglas argued decades ago, the idea of pollution that powers the modern environmental imagination is not only prudential: it has strong tones of desecration, of “pollution” in the religious and ritual sense of the taboo, the untouchable, the urgent barrier between the sacred and the profane. MARY DOUGLAS, *PURITY AND DANGER*, at x–xi (Routledge 2002) (1966); *see also* John Copeland Nagle, *The Idea of Pollution*, 43 U.C. DAVIS L. REV. 1, 28 (2009) (arguing for a broad idea of pollution that participates in the purity/sanctity divide). Nonetheless, the concept of harm seems more useful to me here.

267. CARSON, *supra* note 80, at 6.

268. *See id.* at 7 (“The rapidity of change and the speed with which new situations are created follow the impetuous and heedless pace of man rather than the deliberate pace of nature.”); *see also* Essay, *The Age of Effluence*, TIME, May 10, 1968, at 52 (“[M]any scholars of the biosphere are now seriously concerned that human pollution may trigger some ecological disaster.”).

269. *See* TED NORDHAUS & MICHAEL SHELLINGER, *BREAK THROUGH: FROM THE DEATH OF ENVIRONMENTALISM TO THE POLITICS OF POSSIBILITY* 111–13 (2007) (arguing that the “pollution paradigm” is inappropriate for dealing with the issue of global climate change). *But see* Carl Pope, *There Is Something Different About Global Warming*, GRIST (Jan. 14, 2005), <http://grist.org/politics/pope-reprint> (responding to Nordhaus and Shellenberger’s earlier work on this subject with an argument that the pollution paradigm largely holds for greenhouse gases).

clearer baseline, than the greenhouse gases that cause climate change. Greenhouse gases do not much resemble “pollution” in the sense that has traditionally triggered moral response.

It also seems important motivationally, though maybe not conceptually, that consumption of fossil fuels and, perforce, emission of greenhouse gases is as thoroughly entwined with our way of life as anything is, as essential to our present social existence as sexuality is to our biological being. There is a higher psychological hurdle in seeing such everyday emissions as pollution—a harmful departure from an appropriate baseline—than for special-purpose toxins that we can as well imagine doing without.

Pollution, then, is one major reference point where climate change departs from familiar environmental problems. A second major appeal for modern environmental law is to the charismatic species or place. Appeals to sublimity and epiphany in the Romantic tradition of American preservation relied heavily on the sanctification of certain landscapes and peaks as pilgrimage sites. John Muir even wrote of seeing divinity in the sun-washed granite fields of the Sierra Nevada, linking the grandeur of the place to a divinity that was at once personal and pantheistic.²⁷⁰ Again and again, calls for preservation of large natural areas and systems were anchored on touchstone places, whether Yosemite Valley, the neighboring (now inundated) Hetch Hetchy, or Dinosaur National Monument, the site of the Sierra Club’s defining post-World War II preservation fight and occasion of a great increase in the club’s membership and national attention to its agenda.²⁷¹ The same appeals drove passage of the Endangered Species Act. Although the statute’s terms protect biodiversity generally, it overwhelmingly passed Congress thanks to enthusiasm for the eagles, bears, and wolves that environmentalists have learned to call, with one eyebrow arched, “charismatic megafauna.”²⁷²

Here, as with pollution, laws that seem to embrace an “ecological” ethic—an ethic that treats nature as composed of systems of indirect and complex effects—turn out on closer inspection to rely

270. See MUIR, *supra* note 129, at 29–30.

271. See NASH, *supra* note 60, at 131–33, 161–81, 200 (discussing these three milestones in the history of preservation).

272. See Shannon Peterson, *Congress and Charismatic Megafauna: A Legislative History of the Endangered Species Act*, 29 ENVTL. L. 463, 480 (1999) (describing the various species invoked in Congress during the debate over the Endangered Species Act).

on traditional ideas of harm (pollution) and morally compelling “victims” (charisma)—whether species or places—in ways that do not work for appeals about climate change. When environmentalists try to anchor climate politics on the fate of individual species, notably the polar bear, they are trying to trigger the moral responses that have served them in the past.²⁷³ If a polar bear cub can stand in for the global atmosphere, the thought goes, maybe it can make climate change morally compelling. This tactic seems not to have worked. Although it is early days, both the attempt and the failure reinforce the thought that climate change ties deed and result together by threads that are too many, long, and tangled to fit the familiar ideas of victim, harm, and responsibility that have been central to the ecological era of environmental lawmaking.²⁷⁴

Is there a way of finding motivation in the same ecological complexity that confounds familiar moral appeals? One possible path would start from the traditional aesthetic register of beauty and turn that familiar pleasure in nature’s lovely harmonies into a more complex appreciation of the interdependence of living and nonliving systems. Aldo Leopold, for instance, argued that the cultural challenge for ecological thinking was to cultivate this response.²⁷⁵ Leopold proposed to assess actions and human institutions by whether they tended to support or erode the processes that sustain complex ecological systems. Thus he argued that “[a] thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”²⁷⁶

These old sentences repay careful attention. A *thing* is broader than a personal action or a law, though it may be either: it also may refer, for instance, to cultural habits or a personal propensity to act a certain way. Leopold’s formulation also concentrates on the *tendency*

273. See generally, e.g., TIM FOREMAN, *THE LAST LITTLE POLAR BEAR: A GLOBAL CHANGE ADVENTURE STORY* (2007) (using a polar bear narrative to inspire concern about climate change).

274. See Elisabeth Rosenthal, *Where Did Global Warming Go?*, N.Y. TIMES, Oct. 15, 2011, at SR1 (documenting the decline in public concern about the issue and in political leaders’ engagement with it); Frederick W. Mayer, *Stories of Climate Change: Competing Narratives, the Media, and U.S. Public Opinion 2001–2010* (Dec. 14, 2011) (unpublished manuscript) (on file with the *Duke Law Journal*) (documenting the fragmentation of U.S. climate discussion into competing “narratives”).

275. See LEOPOLD, *supra* note 217, at 187 (calling for new “ethical and aesthetic premise[s]” built in part on “universal curiosity to understand the land mechanism,” that is, to understand ecological relations).

276. LEOPOLD, *supra* note 161, at 240.

to support or degrade natural systems. In both respects, it offers a way of seeing environmental problems that escapes the unanswerable question of whether Action A causes Climate Effect B. That our whole way of life tends to unsettle the global climate system, and that this general point is also true of a myriad of individual acts, from driving to burning coal, are incontrovertible points. If we learned to feel them in the way we have learned to feel the harm of pollution or extinction, we would have become different people.

Leopold's standard also avoids the need for fixed baselines, such as the condition of undisturbed "natural" systems, in assessing "things." This is helpful because such baselines are at their least useful in climate change. The question this formulation implies was not whether we are changing a natural situation, but whether inevitable changes preserve or degrade the *qualities* of systems that can flourish through both internal disruption and exogenous shocks. This ethical approach does not rely on any thought of a "world without us" from which to measure our effect. It assumes an inhabited world already shaped by our use. One might equally well address the standard of "integrity, stability, and beauty" to a wilderness area or a heavily farmed region, looking at different particulars but asking into the whole quality of the human relation to the other inhabitants and forces of the place. The cultural challenge of Leopold's approach is to learn to think of the global climate system as such a "place."

Leopold included "beauty" in his standard,²⁷⁷ which is less simple than it looks. Beauty is not simply a fact, but the product of a relationship between nature on the one hand and human cultures and minds on the other.²⁷⁸ Leopold's standard addressed such relationships, and he aimed to move what counted as beautiful, from a stable pastoral order, marked by simplicity and regularity, to sustainable complexity.²⁷⁹ His ambition was to cultivate a kind of virtue ethics in which a part of what the virtuous person responds to in the natural world is its complex beauty. For someone who saw in this way, the qualities of stability and integrity, or perhaps resilience,

277. *Id.*

278. For a discussion of what it is for a view of the natural world to be a joint product of nature and culture, *see supra* Part III.C.5.

279. LEOPOLD, *supra* note 217, at 185 (calling for an agriculture that "harmonizes the wild and the tame" in a sustainable and productive system, and for learning to find beauty and wonder in such a system).

would also be beautiful, and their beauty would be part of a multifarious reason to preserve them.

This approach to ethics might navigate the features of climate change that have confounded other, more familiar standards. Whether an action tends to support or degrade good qualities in the climate system is a more tractable question than whether it harms some more specific entity via climate change; it is also easier than knowing whether an action somehow “harms” the climate system itself by moving it off a so-called natural baseline.²⁸⁰

The central place that perception plays in this account is also promising. Changes in perception—what can perhaps be described as value-drenched perception—have been vital in the development of environmental ethics. Again and again, seeing the natural world in a new way has been the wellspring or invaluable helper of new accounts of the value of nature and the human place in it. To approach the ethics of climate change in these terms is to think of the problem as a cultural and imaginative challenge: to find a way to prize the beauty, integrity, and stability—or similar values—of global and largely invisible processes.

Even naming this challenge marks the difference between its scale and that of earlier changes in perception. Those changes involved learning to see differently something we can in fact see, such as a bare granite landscape, which once seemed monstrous, then became all but divine. Now the challenge is to learn to envision what we do not literally see: atmospheric processes and the cumulative condition of the planet. To imagine this change, we have to accept that our existing moral grammar, which the atmosphere’s complexity thwarts, is not fixed once and for all, but can expand to make perceptible and salient what was once unavailable or impossibly obscure.

There are a couple of reasons for hopefulness about these imagined changes, despite their daunting scale. One is that, although “seeing” the planet or climate system is impossible with the ordinary eye, the technological imaging it requires is not new to environmental ethics. Although the paradigmatic experience for early Sierra Club

280. One could argue, of course, that defining good system characteristics (“integrity, stability, and beauty”), LEOPOLD, *supra* note 161, at 240, is a way of setting a baseline for harm, but my—contestable—claim here is that a different moral grammar gets engaged by the virtue-ethics question, which does not require describing the harmed entity or causal relation with anything like the same precision.

members was the high-country pilgrimage, much of the public sentiment that gathered around their Romantic politics centered on photography, with its power to transport the eye to a memorialized sublime vista.²⁸¹ A collection of pictures from Dinosaur Monument was a centerpiece of the Sierra Club's public appeal in the emblematic conflict over damming that site, and most of those who were moved to defend Dinosaur never saw it in person.²⁸² Even earlier, sublime landscape paintings and popular prints prepared the cultural ground for Romantic responses to nature.²⁸³

Climate change is not the first problem to present the challenge of palpably expressing elusive, frequently invisible ecological processes. As I argued earlier, food and agriculture have become emblems for ecological engagement.²⁸⁴ It is certainly imaginable that similar developments could happen around climate.

How might law contribute to this possible cultural development? One modest step is for scholars to hold themselves open to this thought: reform efforts may make essential cultural contributions even if they seem futile when we ask simply whether they will likely succeed as lawmaking or regulatory strategies. For instance, municipal efforts to address greenhouse-gas emissions and community-level attempts to define a personal ethics of low-carbon living, although palpably ineffective in one way—they will not directly contribute much to reducing global emissions—may nonetheless turn out to be effective in somewhat the way Sierra Club excursions were: as essays in new ways of experiencing climate change as mattering, and in new shared vocabularies for expressing and elaborating its importance.²⁸⁵ That is, we might regard law and lawmaking as forums in which a cultural and imaginative argument proceeds, an argument that will help to lay the foundation of any legal regime that effectively

281. See HUTH, *supra* note 177, at 30–53 (noting the importance of visual culture in the development of Romantic attitudes to the natural world).

282. See generally WALLACE STEGNER, THIS IS DINOSAUR: ECHO PARK COUNTRY AND ITS MAGIC RIVERS (1955) (providing pictures and descriptions of Dinosaur National Monument and urging support against damming on the site).

283. See Angela Miller, *The Fate of Wilderness in American Landscape Art*, in AMERICAN WILDERNESS: A NEW HISTORY 91, 109 (Michael Lewis ed., 2007) (describing the role of landscape painting in the development of wilderness sentiment).

284. See *supra* Part IV.A.

285. Purdy, *supra* note 86, at 1198–99; see also Krakoff, *supra* note 161, at 107 (arguing that community-level activism can still “provide a blueprint for individual and community action, even in a world where state coordination and enforcement either never fully materialize, or do and nonetheless fail to achieve their stated goals”).

addresses climate change. This new regard is not so much a matter of what the law *should do* as it is about how all involved should understand what it already does and is likely to do: provide a forum in which we give increasingly definite shape to shared questions that, however regrettably, we are not yet prepared to resolve.²⁸⁶

This approach is an undeniably thin proposal. Its thinness reflects in part the fragmentation of climate law and policy. In contrast to, say, the farm bill's role in agriculture, there is no practical and institutional lever to grab for climate policy.²⁸⁷ The failure of U.S. cap-and-trade legislation, which all but implies for a time that global emissions-control efforts will be piecemeal and inadequate, coincides with and helps to usher in, a new focus on adapting to live with climate change.²⁸⁸ Adaptation is necessarily as diverse as the problems that existing regimes already address, from coastal management to biodiversity, which will all change as the global climate does.²⁸⁹ Having failed to build a regime to unify the problem as a legal topic, we are now thrown back on diverse approaches to a problem that is at once coherent—the basic science is simple and global—and terrifically various in its effects. We are also thrown back on the

286. See Benjamin Ewing & Douglas A. Kysar, *Prods and Pleas: Limited Government in an Era of Unlimited Harm*, 121 YALE L.J. 350, 371–72 (2011) (arguing for seeing law's processes, such as tort suits on climate change, as moves in a cultural and political debate over basic values).

287. See J.B. Ruhl & James Salzman, *Climate Change Meets the Law of the Horse*, 62 DUKE L.J. (forthcoming 2013) (on file with the *Duke Law Journal*) (observing the fragmentation of climate-change law and policy).

288. See Alejandro E. Camacho, *A Learning Collaboratory: Improving Federal Climate Change Adaptation Planning*, 2011 B.Y.U. L. REV. 1821, 1857 (“Natural resources regulatory institutions must develop and support an adaptive and interactive information-sharing cyberinfrastructure.”); Alejandro E. Camacho, *Assisted Migration: Redefining Nature and Natural Resource Law Under Climate Change*, 27 YALE J. ON REG. 171, 254–55 (2010) [hereinafter Camacho, *Assisted Migration*] (advocating a “learning infrastructure [that] is intended not only to induce agency self-reflection on the effectiveness of management strategies, but also to promote information flow and dialogue among jurisdictions and between managers and the public”); Daniel A. Farber, *The Challenge of Climate Change Adaptation: Learning from National Planning Efforts in Britain, China, and the USA*, 23 J. ENVTL. L. 359, 360 (2011) (“Given the unavailability of significant climate impacts, adaptation is a necessity.”); J.B. Ruhl, *General Design Principles for Resilience and Adaptive Capacity in Legal Systems—With Applications to Climate Change Adaptation*, 89 N.C. L. REV. 1373, 1401 (2011) (“[A]daptive management, by extending the decisionmaking process from solely the front end to a continuous learning process, promotes adaptive capacity by allowing decisionmakers to continue molding the ‘bowl’ of resilience domains.”).

289. See, e.g., Camacho, *Assisted Migration*, *supra* note 288, at 177 (noting that climate change necessitates adaptation, specifically when dealing with endangered species).

continuing, antifragementing effort to make climate change as a whole tractable for ethics.

The practice that is emerging as a lived ideal in the food movement offers a point of comparison. It involves assessing acts and ways of life as ethical responses to the complexity of natural systems and of human effects on them. Like the possibility I have sketched for climate change, it develops an account of how to interact with the natural world that is powered by an appreciation of the beauty of ecological complexity and a motivation to participate sustainably in it. Whether anything comparably concrete and, so to speak, felt, might emerge around climate change remains an open question.

One might, alternatively, start from the fragmented state of practical responses to climate change and ask how any of these might integrate awareness of climate into a more specific and concrete ethics, as neo-traditional agriculture and the food movement have done in their areas. Either way, the essential thing to appreciate would be that law and other practical measures are doing two things at once: trying to fix, or at least mitigate, a series of problems, and generating ways of understanding the values that the problems engage. As we have seen, this is far from the first time that environmental law has been intensively involved in a cultural and ethical argument. In fact, that is frequently its situation. All the recommendations in this Part are aimed at recognizing and making better use of this role of law: as a generative participant in ongoing ethical argument.

V. CONVERGENT REASONS FOR LAW TO SUPPORT ETHICAL INNOVATION

It is not obvious that, because there is openness to change in some area of environmental value, law should structure the area to support ethical change. There are, though, at least three kinds of reasons to think that it should, which speak to basically different perspectives on environmental values. These reasons correspond to three prominent approaches to environmental ethics generally.

The first argument for promoting ethical change starts from the liberal-humanist approach that marked much of the legal and philosophical discussion of ethical change in the early 1970s. As discussed earlier, Tribe's argument against taking CBA as the measure of nature's value *for us* turned on the case that moral perception is an essential aspect of freedom, in which we at once

experience ourselves as responding to genuine values and choose those values by accepting their claim on us.²⁹⁰ Ceasing that process would force an unhappy choice between freedom and the genuineness of value.²⁹¹ Whether or not one accepts Tribe's formulation, the basic thought is not hard to get hold of: developing moral perception cultivates a special blend of human capacities in which we are at once responsible and creative, free enough to remake the world and fixed enough to keep our footing as we do so. So seen, environmental ethics is centrally, if not exclusively, an expression of something *about us*, a set of powers we can put to more or less appropriate use. Professor Douglas Kysar has recently reengaged these themes from a more post-modern point of view, emphasizing that the *liberal* thing, that is, the free and freedom-respecting thing, about moral judgment is precisely its refusal of closure, of any final answer to the questions of value that it both frames and provisionally resolves.²⁹² Like certain marine mammals, we humans must keep moving or drown.

In a second perspective, environmental ethics is not about us: it is the attempt to see and honor accurately the value present in the natural world. The point of environmental ethics is not what it enables us to do, but what it puts us in touch with or shows us. This point was, for instance, the concern of Aldo Leopold, who, although he was concerned with building "receptivity into the still unlovely human mind," was centrally concerned with what we should be receptive *to*: his was a program of ethical change, but one worth undertaking because the natural world, in all its complexity, was there to be valued.²⁹³

The case for promoting ethical development seems straightforward. We know enormously more than we once did about the natural world, and our knowledge is growing exponentially. Correspondingly, our power over the rest of nature is vast. Many of our habits of valuing the natural world come down to us from times when the world itself looked very different—erroneously, it now

290. See Tribe, *supra* note 16, at 1332–38.

291. See *id.*

292. See KYSAR, *supra* note 101, at 97–98, 194–99, 242–45. My use of *liberal*, of course, refers to the word's etymological root in the Latin for *freedom*.

293. ALDO LEOPOLD, *Conservation Esthetic*, in *A SAND COUNTY ALMANAC WITH OTHER ESSAYS ON CONSERVATION FROM ROUND RIVER*, *supra* note 161, at 256, 269.; see also Rolston, *supra* note 65, at 152 (arguing a version of this idea); Goodpaster, *supra* note 65, at 319–20 (same).

seems. Many of the practical questions we have to resolve engage options—geo-engineering, for example—that would have been science fiction at best when our existing environmental values came into being. It seems almost unavoidable that, in these circumstances, there would be much left to appreciate about the ethical meaning of the natural world and the attitudes we might take toward it.

The third approach is quite different in that it regards ethical perception as instrumental to functional ends, rather than as essentially about the perception of value that is its apparent business. This functional view of ethics has come along with much of the recent work in experimental psychology, reflecting the influence of evolutionary thinking in that field and today's social sciences generally. Professor Jonathan Haidt, for instance, sets his account of the basic, trans-substantive structure of moral psychology within such a theory: ethical responses enable humans to solve collective-action problems, “suppress selfishness” and achieve widespread cooperation.²⁹⁴ The question to ask about any formulation of ethics is how it serves this beneficial cooperation by producing and supporting virtues, practices, and institutions that make defection from cooperation less frequent and damaging.

This is nominally a descriptive question, and Haidt and others prudently avoid pronouncements on the philosophers' territory of meta-ethics. Nonetheless, to proceed in this vein *just is* to assume that cooperation and collective flourishing are basically good goals and so that explaining ethics in terms of its service to those goals shows that ethics *makes sense*, not just descriptively as a pattern of phenomena, but normatively as a strut of a reasonable, desirable human achievement. Were it otherwise, one could not finish a defense of the functional theory of ethics with the feeling that contradictions had been resolved into a larger purpose. Thus Professor Haidt can defend “a social-functionalist perspective” by asserting, “[t]he many biases, hypocrisies, and outrageous conclusions of . . . moral thinking . . . appear to be design features, not bugs.”²⁹⁵

So, from this perspective, it would seem to be a design failure for a system of social cooperation to produce collective-action problems so extensive in their effects and difficult to solve that they threatened to overrun it. That, however, is precisely what climate change is: a phenomenon of externalities produced by the economically

294. Haidt & Kesebir, *supra* note 145, at 800.

295. *Id.* at 814.

productive integration of individual self-interest and social benefit that defines market societies. So far, our ethical judgments do not go nearly far enough in registering contributions to climate change as harm, or otherwise motivating individual or political responses that approach the scale of the problem. From a social-functional perspective, it would seem that our moral psychology has enabled us to produce a form of social cooperation that generates collective-action problems larger than any of those that the same psychology has previously helped to overcome, and which that psychology, at present, cannot prevent. Our feature, like Kafka's Gregor Samsa, has woken up one day to find itself a bug.²⁹⁶

If I am basically on sound ground in ascribing this normative attitude to the functionalist perspective on ethics, then someone starting from this perspective would be interested in whatever turns our newly revealed bugs back into features. One way this reformation might happen is through the development of ethical perceptions that can motivate a different set of personal and political responses to climate change. (This argument does not need to be restricted to climate change, and might be extended to the human ecological footprint generally over the next century, but climate is the clearest case because of the collective-action structure of the problem.) Laws that facilitate ethical development would therefore represent a self-aware effort to create conditions in which the functional account of ethics would describe a success rather than a devastating paradox.

CONCLUSION

The purpose of this Article has not been to give an exposition of John Rawls's thought, but some features of that thought make it an appropriate place to end as well as to begin. As far as I know, Rawls did not return in substance to "right conduct in regard to . . . nature."²⁹⁷ Readers will recall that his career was a steady tack away from metaphysics. In "Justice as Fairness: Political Not Metaphysical"²⁹⁸ and his follow-up book, *Political Liberalism*,²⁹⁹ Rawls

296. See generally FRANZ KAFKA, *The Metamorphosis*, in THE METAMORPHOSIS, THE PENAL COLONY, AND OTHER STORIES 67 (Willa Muir & Edwin Muir trans., Schocken Books 1988) (1946).

297. RAWLS, *supra* note 1, at 512.

298. John Rawls, *Justice as Fairness: Political Not Metaphysical*, 14 PHIL. & PUB. AFF. 223 (1985).

299. JOHN RAWLS, *POLITICAL LIBERALISM* (1996).

adopted a position that rested not on a theory of reason or human nature, but instead on what he called “the public, political culture” of the United States.³⁰⁰ This refocus was in part a response to communitarian critics who argued that Rawls’s account of justice relied on an indefensibly individualistic conception of the person. In his later work, Rawls built interwoven accounts of justice and political legitimacy on such materials as the Constitution, Supreme Court opinions, and touchstone presidential addresses, all instances of the underlying “public, political culture” whose commitments he aimed to make systematic.

This Article argues that what Rawls concluded about political ethics is also true of environmental ethics. The values that orient a political community are the products of that community’s own struggles and efforts at persuasion and discernment. There is little hope of specifying such values, and none of making them authoritative, outside that community’s own experience and argumentative resources. When one’s theorizing about such values aims to engage the community that lives by them—or fails to live by them—it is unavoidably engaged in drawing out the possible meaning of what people have already said and done and proposing how they (or others) might carry forward their past as a living tradition. In other words, ethics done in a certain way participates self-consciously in a tradition of experience and reflection, disagreement and persuasion.

Rawls was right, though, that environmental ethics relies on “theor[ies] of the natural order and our place in it.”³⁰¹ That these theories emerge through culture and politics, rather than from the head of Zeus, does not make them less essential. It does, however, lay due stress on the fact that they are part and parcel of broader conflicts that are not likely to be resolved by an apt conceptual formulation. Ethical reflection does not tell people what they must or cannot think. By the same token, it is not involved simply in scrupulous application of what they already think. It is part of a continuing argument whose elements include change and creativity.

Environmental law is one of the settings in which ethical development takes place. This development happens not just in law’s

300. There are plenty of debates about whether, on the best reading, *Political Liberalism* in fact develops, clarifies, or abandons Rawls’s earlier project. I have no intent of getting into those here.

301. RAWLS, *supra* note 1, at 512.

internal processes, such as standing, or in the pronouncements of courts. At least as important is environmental law's shaping and framing of experience. In experience, new kinds of ethical claims become available, even obvious, which would once have seemed strange. Sometimes this development is relatively quiet, as debate moves around familiar issues and settled compromises. At other times, further-reaching arguments come to the fore in issues not yet settled or even fully defined.

We are now in a time of the second sort. Both the history of environmental law and politics and a structured sense of the vocabulary of ethical change can give us compass points in this terrain. Environmental law will inevitably shape the experiences and inflect the interpretations that will give these issues their shape in the next generation of what Rawls would have called our metaphysics—a common yet contested view of the world, which we cannot do without but should not expect ever to resolve into just one form. Shaping the law to play this role actively would mean embracing both our creative ethical capacity and our sense of responsibility to make sense of and do justice, in every sense of that word, to the natural world.