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Commentary

The Paradox of (Eco)pragmatism

Jamie A. Grodsky[†]

INTRODUCTION

When we assess environmental programs from the standpoint of eco-pragmatism, where should we focus the zoom lens? Should we evaluate statutory schemes as a whole, mindful of their disparate political histories and implementing mechanisms, or can we justifiably limit our scope and evaluate discrete segments? Might certain programs be viewed as eco-pragmatic in their totality, yet unyielding in their individual parts? Likewise, at what point in time should we snap the photo? How might a shift in temporal perspective change our conception of what is pragmatic and what is not? Could any statutory program be perceived as eco-pragmatic, depending on where we set the zoom or when we snap the photo?

Perhaps this sense of relativism should lead to further inquiry about how and when to define, create, and evaluate regulatory instruments from an eco-pragmatic standpoint. In such an inquiry, we may need to account for the fact that many mechanisms and programs, seemingly draconian at first glimpse, will be smoothed around the edges by ineluctable, countervailing forces. Perhaps we cannot rightfully appraise a statutory or regulatory scheme until we have given it time to interact with the courts, the press, interest groups, and Congress's own re-evaluative mechanisms. At least some prescriptive rules, when given time to simmer in the spotlight of the press and the cauldron of politics, may emerge to become more eco-pragmatic than their more obviously pragmatic counterparts—specifically, programs designed to embrace a

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“pragmatist middle.”¹ Venturing a step further, we may find that certain nondiscretionary statutory commands or procedures, which initially might be labeled unforgiving and thus unsustainable under Dan Farber’s eco-pragmatic framework,² ultimately may serve as preconditions for developing new kinds of pragmatic, environmentally protective measures, such as pollution emissions trading, habitat conservation planning, and other market and contract-based programs.³ Therein lies the paradox. Recent experiments in regulatory innovation suggest that certain kinds of pragmatic instruments may depend upon unequivocal statutory baseline commands that might not comport with *Eco-pragmatism’s* hybrid approach.⁴

In this Essay, I examine eco-pragmatism from two perspectives. First, I suggest that, as illustrated by the story of the Endangered Species Act (ESA), even where a program is initiated by a statute that asserts environmental values in a strong, seemingly unequivocal way, the integration of economic and environmental considerations may effectively take place through the give and take of our political system. Various incentive structures operating outside the formal legal framework may help integrate competing values and temper the positive law, resulting in a regime with qualities strikingly

1. See J.B. Ruhl, *A Manifesto for the Radical Middle*, 38 IDAHO L. REV. 385, 387 (2002) (stating that those adopting an “aggressive middle” approach can actively define their positions, as opposed to letting the “middle” be defined by default).

2. DANIEL A. FARBER, *ECO-PRAGMATISM* 13 (1999). A central element of *Eco-pragmatism* is the concept of social sustainability. The book begins with the premise that, to be sustainable, environmental law must accommodate not only environmentalism, but economics and other key values. Otherwise, it will be subject to backlash and ultimately will erode. *Id.* A statute that asserts a clear, nondiscretionary environmental value as a command, particularly one that can be enforced by third parties in litigation, arguably could be considered unsustainable under this framework.

3. See *infra* Part IV (discussing Habitat Conservation Plans (HCPs), Project XL, Supplemental Environmental Projects (SEPs), and emissions trading).

4. In this Essay, I use the term “eco-pragmatism” generically as well as in reference to Farber’s book. References to the book are italicized.

Farber’s hybrid approach starts with a presumption in favor of the environment, but that presumption is tempered by technical and economic feasibility considerations. Formal cost-benefit analysis serves as a back-stop where costs are “grossly disproportionate to the benefits” of environmental protection. FARBER, *supra* note 2, at 12; see also *infra* notes 44-62 and accompanying text.

similar to those sought through an eco-pragmatic analytic framework.

Second, viewing statutes as bargaining catalysts,⁵ I consider whether something of value may be lost if we reject the use of clear statutory baselines as tools to advance environmental goals. This point is illustrated not only by longstanding and substantially evolved regulatory regimes, but also in the effective use of newer market and contract-based approaches. By characterizing statutes as the “opening gambits in a prolonged bargaining process,”⁶ Farber’s more recent writings on “slippage”⁷ may help provide a foundation for constructing useful new decision-making principles. Only by viewing statutes from a dynamic or systems perspective can we evaluate the relative efficiencies of traditional regulatory structures and proposed alternatives in a meaningful way.

I. PRAGMATISM AND PERSPECTIVE

A. SHIFTING THE PERCEPTUAL FRAME

The implications of shifting the contextual and temporal frames are evident in the respective evaluations of the ESA by Farber and J.B. Ruhl. As originally enacted in 1973, the ESA would not be considered eco-pragmatic by any measure. The Supreme Court in *TVA v. Hill* noted that “[o]ne would be hard pressed to find a statutory provision whose terms were any plainer than those in section 7 of the Endangered Species Act This language admits of no exception.”⁸ Likewise, the

5. Daniel A. Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 HARV. ENVTL. L. REV. 297, 317 (1999).

6. *Id.*

7. The slippage concept expresses the disparity between environmental regulatory mandates and actual enforcement. *Id.* at 298. Negative slippage includes lax enforcement, missed deadlines by regulators or regulated parties, and noncompliance by regulated parties. *Id.* at 299. Affirmative or positive slippage occurs when regulators fashion alternatives to compliance with statutory mandates. *Id.* at 307. This would include decisions to substitute formal standards on a case-by-case basis with negotiated agreements. See text accompanying notes 63-71.

8. 437 U.S. 153, 173 (1978). Section 7 of the ESA requires each federal agency, in consultation with the Secretary of Interior or Commerce, to insure that any actions authorized, funded, or carried out by the agency are “not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of such species’ critical habitat. 16 U.S.C. § 1536 (a)(2) (2002).

absolute prohibition on “taking” of endangered species in section 9 might be viewed as an unmitigated triumph of environmental over economic values.⁹

Farber views the statute through a wide-angle lens and from a long-term perspective, however, and concludes that the ESA may be deemed eco-pragmatic at a “macro” level. Accounting for various amendments and balancing procedures, including the 1978 establishment of the Endangered Species Committee (or “God Squad”) and the accompanying exemption process, he finds that the ESA comports with his recommended hybrid approach for integrating economic and environmental considerations:

Congress obviously felt that destruction of endangered species posed a threat of serious environmental harm, and it also seems clear that compliance by the government with the statute *overall* was feasible—that is, there is no reason to think that avoiding the destruction of endangered species, as a general matter, involves costs that are grossly disproportionate to any environmental benefit. Thus, at a “macro” level, the statute is consistent with the hybrid approach.¹⁰

Similarly, in this Symposium, Ruhl chooses to evaluate section 9 and the later developed section 10 together, concluding that the taking prohibition of section 9 is eco-pragmatic when viewed in conjunction with section 10’s exemption for incidental takes and Habitat Conservation Plans (HCPs).¹¹ Ruhl concludes that the ESA, as a whole, is “remarkably eco-pragmatic.”¹²

B. EVOLUTION OF THE ESA

The history of the ESA suggests that certain statutory programs, even if absolutist at the outset, may tend toward

9. Section 9 of the ESA makes it unlawful to “take” (defined by regulation as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect”) any endangered animal species. 16 U.S.C. §§ 1538(a)(1), 1532(19); see also *Babbitt v. Sweet Home Chapter of Cmty. for a Greater Oregon*, 515 U.S. 687, 690-91 (1995).

10. FARBER, *supra* note 2, at 128-30.

11. Ruhl couples section 9 with section 10 by pointing to the “except as provided” caveat in the take prohibition. J.B. Ruhl, *Is the Endangered Species Act Eco-pragmatic?*, 87 MINN. L. REV. 885, 920 (2003). Section 9 reads, “Except as provided in sections 1535 (g)(2) and 1539 of this title [incidental take exception and Habitat Conservation Plans], with respect to any endangered species of fish or wildlife . . . it is unlawful for any person subject to the jurisdiction of the United States to . . . take any such species within the United States or the territorial sea of the United States.” 16 U.S.C. § 1538 (a)(1)(B).

12. Ruhl, *supra* note 11, at 886.

pragmatism through an organic or evolutionary process. As Zygmunt Plater, the lead plaintiff's attorney in *TVA v. Hill*, has described, public response to the Court's strict enforcement of section 7 led to Congress's passage of a series of amendments incorporating various balancing mechanisms.¹³ For example, the 1978 amendments¹⁴ included authorization of the aforementioned Endangered Species Committee, which can provide case-specific exemptions to section 7 jeopardy findings as long as certain criteria are met—one of which involves balancing the benefits of species preservation against the benefits of the proposed project.¹⁵ The insertion of an economic balancing test into section 4's critical habitat designation process also was a direct legislative response to *TVA v. Hill*.¹⁶

13. See Zygmunt J.B. Plater, *Environmental Law in the Political Ecosystem—Coping with the Reality of Politics*, 19 PACE ENVTL. L. REV. 423, 446 (2002) (discussing the role of politics in the snail darter case); Zygmunt J.B. Plater, *Law and the Fourth Estate: Endangered Nature, the Press, and the Dacey Game of Democratic Governance*, 32 ENVTL. L.J. 1 (2002) (discussing the sustainability and influence of mischaracterizations of the snail darter controversy and their effect on public opinion and legislative response).

14. 16 U.S.C. § 1536 (e)-(o).

15. It should be noted that this is an extraordinarily stringent flexibility mechanism. The Endangered Species Committee exemption process requires cabinet-level officials to make findings on the basis of four, very demanding criteria. *Id.* § 1536(h)(1). The statute provides, in relevant part,

The Committee shall grant an exemption . . . if, by a vote of not less than five of its members voting in person —

(A) it determines on the record . . . that —

(i) there are no reasonable and prudent alternatives to the agency action;

(ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest;

(iii) the action is of regional or national significance; and

(iv) neither the Federal agency concerned nor the exemption applicant made any irreversible or irretrievable commitment of resources. . . and

(B) it establishes such reasonable mitigation and enhancement measures, including, but not limited to, live propagation, transplantation, and habitat acquisition and improvement, as are necessary and appropriate to minimize the adverse effects of the agency action upon the endangered species, threatened species, or critical habitat concerned.

Id.

16. Before 1978—the year *TVA v. Hill* was decided—the EPA made critical habitat determinations solely on the basis of biological criteria. Under the current provision, while a “core” area must be designated solely on the basis of biological criteria, any area beyond that necessary to prevent extinction must be subject to a balancing test—the Secretary is required to consider whether the economic benefits of not designating those areas will

Later, in 1982, Congress expanded section 10 to provide an exception to section 9's taking prohibition and allow for certain incidental takes of endangered species as long as accompanied by an HCP and other required features.¹⁷ Facing major reform legislation in the 104th Congress, the Clinton administration further softened the rough edges of the statute by promoting and enhancing administrative mechanisms such as the "no surprises" policy,¹⁸ the "safe harbors" policy,¹⁹ candidate conservation agreements,²⁰ low-effect HCPs,²¹ and multi-

exceed the biological benefits of designation. *Id.* § 1533 (b)(2); *see also* STANFORD ENVIRONMENTAL LAW SOCIETY, THE ENDANGERED SPECIES ACT 67-68 (2001).

17. 16 U.S.C. § 1539(a)(1).

The Secretary may permit, under such terms and conditions as he shall prescribe . . .

(B) any taking otherwise prohibited by section 1538(a)(1)(B) of this title if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

(2)(A) No permit may be issued by the Secretary authorizing any taking referred to in paragraph (1)(B) unless the applicant therefore submits to the Secretary a conservation plan [HCP] that specifies —

(i) the impact which will likely result from such taking;

(ii) what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;

(iii) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and

(iv) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.

(B) If the Secretary finds, after opportunity for public comment, with respect to a permit application and the related conservation plan that

(i) the taking will be incidental;

(ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;

(iii) the applicant will ensure that adequate funding for the plan will be provided;

(iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild . . . the Secretary shall issue the permit.

Id.

18. "No surprises" agreements assure landowners holding section 10 permits that upon completion of an HCP they will face no further obligations toward any covered species. If approved actions turn out to harm species, the government, not the landowner, will pay for any necessary adjustments. 50 C.F.R. §§ 17.22(b)(5)-(6), 17.32(b)(5)-(6), 222.22(g)-(h).

19. "Safe harbor" agreements assure landowners who improve species habitat that additional obligations will not be imposed if the new or improved habitat attracts additional species, and that no liability will ensue if the habitat is later returned to a minimum baseline. 64 Fed. Reg. 32,706 (1999).

20. The goal of the Candidate Conservation Agreement policy is to protect unlisted species by providing incentives for non-federal landowners and land

species HCPs.²²

The ESA has evolved to the extent that we can now have an informed debate about whether the program, as currently configured, is overprotective or underprotective of endangered and threatened species—and the story is not over. Controversies surrounding species such as the Delhi-Sands Flower-loving fly²³ and the Klamath sucker fish²⁴—political

management agencies to maintain, restore, or enhance habitat for those species. *See id.*

21. Low-effect HCPs are determined by the Fish and Wildlife Service to require lesser levels of protection.

22. *See* Oliver A. Houck, *On the Law of Biodiversity and Ecosystem Management*, 81 MINN. L. REV. 869, 960-71 (1997). For a lively and informative discussion of the 104th Congress and Clinton administration reforms, see Donald J. Barry, *Opportunity in the Face of Danger: The Pragmatic Development of Habitat Conservation Plans*, 4 HASTINGS W.-NW. J. ENVTL. L. & POLY 129, 131 (1998) (relating the author's experiences in promoting innovative arrangements under the ESA). For a discussion of the growth in HCP approvals during the Clinton administration and other features of ESA evolution, see Robert L. Fischman & Jaelith Hall-Rivera, *A Lesson for Conservation from Pollution Control Law: Cooperative Federalism for Recovery Under the Endangered Species Act*, 27 COLUM. J. ENVTL. L. 45, 73-78 (2002) (highlighting the role of the ESA's section 4(d) in promoting federal/state conservation efforts).

23. Protection of a small colony of endangered Delhi Sands flower-loving flies in San Bernardino County, California, has given rise to the modification of certain development proposals and has generated constitutional litigation and considerable press attention. *See, e.g.*, William Booth, *Developers Wish Rare Fly Would Buzz Off*, WASH. POST, April 4, 1997, at A1; Imran Ghori, *Officials Air Views Over Fly Controversy*, THE PRESS-ENTERPRISE RIVERSIDE, Nov. 21, 2002, at B3; Ellen Braunstein, *Cities Hope to Swat Flies*, THE PRESS-ENTERPRISE RIVERSIDE, Sept. 26, 2002, at B1; Ellen Braunstein, *Fly Dispute Swats Ballpark Project*, THE PRESS-ENTERPRISE RIVERSIDE, Sept. 24, 2002, at B8; Ellen Braunstein, *Rare Fly Seen at Sports Complex Site*, THE PRESS-ENTERPRISE RIVERSIDE, Aug. 22, 2002, at B1; Roberto Hernandez, *Insect May Get Its Own "Land Bank": Plan Would Give Delhi Sands Fly 75 Acres in Colton*, THE PRESS-ENTERPRISE RIVERSIDE, Nov. 11, 2000, at B1; Bruce Ritchie, *Shelter For Ugly and Open Debate: Endangered Species Law Protects Both the Pretty and Mundane*, THE PRESS-ENTERPRISE RIVERSIDE, Mar. 15, 1999, at B1; David G. Savage, *Buzz over a Fly Presents Challenge to Species Act Environment*, L.A. TIMES, June 15, 1998, at A1; Onell Soto, *Supreme Court Swats Fly's Foes*, THE PRESS-ENTERPRISE RIVERSIDE, June 23, 1998, at A1; Sandra Stokley, *Court Backs Endangered Fly in Suit by Inland Officials*, THE PRESS-ENTERPRISE RIVERSIDE, Dec. 10, 1997, at A1.

The National Association of Home Builders invoked the Commerce Clause to challenge the application of the ESA to this intrastate colony of flies. The D.C. Circuit upheld the application of the statute, and the Supreme Court has denied certiorari. *Nat'l Ass'n of Home Builders v. Babbitt*, 130 F.3d 1041 (D.C. Cir. 1997), *cert. denied* 524 U.S. 937 (1998). For discussions of intrastate endangered species and the Commerce Clause, see John Copeland Nagle, *The Commerce Clause Meets the Delhi Sands Flower-Loving Fly*, 97 MICH. L. REV.

heirs to the snail darter—already are serving as rallying points for advocates of statutory change in the twenty-first century.

Was the ESA, as originally drafted, unsustainable—an example of a draconian statute which repeatedly has generated, and continues to generate, backlash that undermines the statute's original commands? Should we view current regulatory policies as unexamined products of bipolar warring factions,²⁵ saved at the last minute from annihilation by emergency measures during the Clinton administration, or, alternatively, as part of an organic system of checks, balances, and feedback mechanisms working as would be expected in a democratic society? In light of these observations, is the underenforcement of section 9 reflective of an unsustainable environmental regulation, or could it be viewed as an example of the importance of prosecutorial discretion not to enforce a statute in unwarranted situations? Does the dearth of jeopardy opinions²⁶ under section 7 represent underenforcement of an

174 (1998). See also Bradford Mank, *Protecting Intrastate Threatened Species: Does the Endangered Species Act Encroach on Traditional State Authority and Exceed the Outer Limits of the Commerce Clause?*, 36 GA. L. REV. 723 (2002); Omar N. White, *The Endangered Species Act's Precarious Perch: A Constitutional Analysis Under the Commerce Clause and the Treaty Power*, 27 ECOLOGY L.Q. 215 (2000).

24. See, e.g., Michael Milstein, *Draught Dread Rises in Klamath*, THE OREGONIAN, Feb. 21, 2003, at A-1; Michael Milstein, *Groups Will Sue to Keep Klamath Water for Fish*, THE OREGONIAN, Jan. 31, 2003, at D-2.

25. In a review of *Eco-pragmatism*, Ruhl describes contemporary environmental law as a “mish-mash of laws, regulations, judicial opinions, and countless administrative decisions and policies,” such that “the ‘middle’ in environmental law is simply whatever the annihilation process leaves behind.” J.B. Ruhl, *Working Both (Positivist) Ends Toward a New (Pragmatist) Middle in Environmental Law*, 68 GEO. WASH. L. REV. 522, 523 (2000). Noting that Farber “does not suggest that the political annihilation process landed environmental law in a radically different place than *Eco-pragmatism* would have found,” Ruhl describes Farber's work as an attempt to find an a priori sense of how the middle ground should look—a deliberate middle ground. *Id.* at 523-34; see also Douglas A. Kysar & James Salzman, *Environmental Tribalism*, 87 MINN. L. REV. 1099 (2003).

26. A World Wildlife Fund study has illustrated that many section 7 consultations between the FWS and other federal agencies have involved rapid, informal consultations, many by telephone, and resulted in no delay or modification of a project. Only 0.3% of all consultations during the five-year period of the study resulted in jeopardy opinions. WORLD WILDLIFE FUND, TALK IS CHEAPER THAN WE THINK: THE CONSULTATION PROCESS UNDER THE ENDANGERED SPECIES ACT (1994). In a review of jeopardy findings, Oliver A. Houck found that most permitted projects proceed with minimal conditions, such as signs reading “don't dredge while the eagles are nesting,” speed limit signs in manatee waters, and a wider median strip in a federal highway

unreasonable statute, or provide an example of the availability of administrative discretion to negotiate mitigative strategies?

Plater, discussing rules and their consequences, notes that strict rules invariably lead to calls for flexibility and variance or exemption procedures, and most include or develop accommodations in location, timing, design, or technology.²⁷ Perhaps this is akin to the biological concept of negative feedback, which tends to stabilize systems over time.²⁸ Plater further observes that judicially enforceable substantive rules accompanying relatively new civic values will engender the greatest backlash, implying that various accommodations likely will diminish resistance over time.²⁹ Although the latter point is unclear with regard to the ESA, regulatory takings jurisprudence may bear this out, as some courts have determined that notice of established regulatory programs should lead to diminished expectations, and buyers' reduced prices will have accounted for this diminution.³⁰

routed through wolf habitat to enable wolves to pause safely while crossing." Oliver A. Houck, *The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. COLO. L. REV. 277, 326 (1993); see also Oliver A. Houck, *Reflections on the Endangered Species Act*, 25 ENVTL. L. 689, 692 (1995).

27. ZYGMUNT B. PLATER, ENVIRONMENTAL LAW AND POLICY 699-700 (2d ed. 1998).

28. The concept of feedback loops in the biological sciences may provide a helpful analogy. In a feedback loop, information about the result of an action is transmitted back to the system in a manner that will either accelerate the reaction in the same direction as the proceeding result (positive feedback), or produce results in the opposite direction as the earlier results (negative feedback). See, e.g., J. de Rosnay, *Principia Cybernetica Web*, at <http://www.pespmc1.vub.ac.be/feedback.html> (last visited Jan. 15, 2003). In a negative loop, every variation toward a forward direction triggers a correction backward, and vice versa. While positive feedback theoretically leads to exponential growth or decline, negative feedback works to stabilize a system over time. *Id.* One commentator has compared negative feedback loops to a water tank equipped with a float. *Id.* When the water reaches a certain level, the float sends a signal that will close the flow of water until it is lowered again. At the grave risk of comparing our cherished constitutional system of checks and balances to the operation of a toilet tank, the example is instructive in that it suggests that a systems perspective might help inform the processes leading to eco-pragmatic outcomes.

29. PLATER, *supra* note 27, at 700.

30. For example, in *Forest Properties, Inc. v. United States*, 177 F.3d 1360, 1367 (Fed. Cir. 1999), the Federal Circuit determined that the Army Corps's denial of a dredge and fill permit under § 404 of the Clean Water Act did not amount to a compensable taking, despite the fact that the developer had received the necessary state permits. In applying the *Penn Central* test, the court found that Forest Properties lacked reasonable investment-backed

The ESA experience suggests that the political process itself may exhibit many attributes of pragmatism—in particular, a reliance on experimentation and feedback as an approach to problem solving, and the integration of differing perspectives.³¹ As we search for analytical frameworks to guide future decision making, we should recognize that a well-defined environmental baseline that comes to embrace economic values over time may be different from, but not necessarily inferior to, one that is structured by experts seeking to blend potentially competing value premises at the outset. As a corollary, statutes with seemingly unequivocal baseline commands should be viewed, not in isolation, but as part of a dynamic system of formal and informal incentives—a dialectical process in which regulators, the regulated, courts, and interest groups engage in cost-benefit balancing of their own, responding to a mix of market and governmental signals—in the process, changing the original programmatic construct. Only by viewing statutes from a dynamic or systems perspective³² can

expectations because, when the company bought the land in 1988, Corps guidelines “had been in effect for a number of years.” *Id.* at 1366. The guidelines “made it clear that filling wetlands to construct housing on the reclaimed land was disfavored and that it was most unlikely that such a project would be approved.” *Id.* Quoting its 1994 decision in *Creppel v. United States*, 41 F.3d 627, 632 (Fed. Cir. 1994); the court stated,

The investment-based expectation criterion “limits recovery to owners who can demonstrate that they bought their property *in reliance* on the non-existence of the challenged regulation. One who buys with knowledge of a restraint assumes the risk of economic loss.”

Id. at 1367 (emphasis added); see also *Good v. United States*, 189 F.3d 1355, 1363 (Fed. Cir. 1999) (holding that Army Corps guidelines which prevented a landowner from developing his land did not constitute a taking because the landowner was “aware at the time of purchase of the need for regulatory approval to develop his land” and “[h]e must also be presumed to have been aware of the greater general concern for environmental matters”). For the Supreme Court’s recent treatment of the notice question in takings law, see *Palazzolo v. Rhode Island*, 533 U.S. 606, 634-35 (2001) (O’Conner, J., concurring) (stating that notice is a relevant, albeit not dispositive, element in the analysis of investment-backed expectations).

31. See, e.g., JOHN DEWEY, *LOGIC: THE THEORY OF INQUIRY* 462-512 (1938).

32. A premise of systems dynamics, which uses concepts drawn from the natural sciences (particularly feedback control) to understand change in social and economic systems, is that “the inherent conflict between immediate and ultimate consequences is not given its proper weight in management and political decisions.” Jay W. Forrester, *System Dynamics and the Lessons of 35 Years*, in *THE SYSTEMIC BASIS OF POLICY MAKING IN THE 1990S*, at 27 (Kenyon B. De Greene ed., 1991) (unpublished manuscript, on file with the Minnesota Law Review).

we evaluate the relative efficiencies of command-and-control and various alternatives,³³ and better understand the synergy between command and innovation.

II. ECOPRAGMATISM'S NORMATIVE ASPECT

As the above suggests, a statute with an untempered assertion of environmental values ultimately may result in a regulatory regime that successfully integrates economic considerations to the satisfaction of the eco-pragmatist. In this section I consider whether, as *Eco-pragmatism* suggests, new environmental regimes should best be constructed around the principle of a "deliberate middle."³⁴

A priori, there might be various advantages to starting in the middle. First, it might be argued that in today's political world a new environmental program embodying an unyielding regulatory regime would be a "nonstarter." Second, it might be said that an alternative regime would not endure over the long term, or that the result would be a patchwork of ad hoc and inconsistent decisions vulnerable to shifting political tides.³⁵ Third, it could be argued that, even if a statute like the ESA got to the right place in the end (or aims to get there), it would have arrived more quickly and/or cheaply had we started in the middle.

As the following suggests, however, real world experience may call into question whether starting from a deliberate middle will be optimal from either an environmental or an

33. Daniel H. Cole and Peter Z. Grossman, analyzing the relative efficiencies of command-and-control and alternatives from a historical, technological, and institutional perspective, have taken an important step in this direction. See Daniel H. Cole & Peter Z. Grossman, *When Is Command-and-Control Efficient? Institutions, Technology, and the Comparative Efficiency of Alternative Regulatory Regimes for Environmental Protection*, 1999 WIS L. REV. 887, 888 (illustrating certain overlooked efficiencies of traditional command-and-control regulatory schemes); see also Howard Latin, *Ideal Versus Real Regulatory Efficiency: Implementation of Uniform Standards and "Fine-Tuning" Regulatory Reforms*, 37 STAN. L. REV. 1267 (1985) (suggesting that command-and-control regulation has fostered significant improvements in environmental quality at a societal cost that has not proved prohibitive).

34. In discussing the "deliberate middle," I am referring to *Eco-pragmatism's* goal of charting a course that merges economic and environmental considerations before the subsequent bargaining processes inevitably occur. I recognize that Farber starts with a presumption in favor of the environment, but that presumption may be tempered by a feasibility analysis at the outset. See discussion *infra* note 46 and accompanying text.

35. See FARBER, *supra* note 2, at 13.

efficiency perspective. *Eco-pragmatism's* unassailable goal of integrating environmental and economic values may be achieved from other starting points.

A. PREMISES

One of the simplest and yet most important messages of *Eco-pragmatism* is the concept of social sustainability. The book begins with the premise that, to be sustainable, environmental law must accommodate not only environmentalism, but other key values; otherwise, it will trigger backlash and ultimately will erode:

The ultimate challenge for environmental law is social sustainability Otherwise, we will have a regulatory structure that is too draconian for us to live with in the long run. Only by acknowledging the claims of both the public and private spheres can we hope to create a durable scheme of environmental protection. Without appealing to public values, environmental regulations could not long enjoy general support But without recognizing private interests as legitimate, environmental regulations may provoke unmanageable resistance from those paying the price and are likely to be seen by society as a whole as too draconian to be acceptable. Long-term, sustainable environmental regulations must appeal to public values, while recognizing the significance of economic interests as well.³⁶

The other key premise is the importance of maintaining an environmental baseline—a presumption, albeit rebuttable, in favor of protecting the environment.³⁷ Farber has left us much room to flesh out the meaning of the baseline, recognizing that “[i]t is one thing to endorse an environmentalist baseline and another to work out how such a baseline should apply.”³⁸ One question left unresolved is whether the baseline should be a measure of environmental quality, such as ecosystem biodiversity or a level of air or water quality, or whether it should be a behavioral mandate such that the “taking” prohibition of ESA section 9 or the “no jeopardy” requirement of section 7. In other words, an unresolved issue is whether the environmental baseline is an affirmative standard to which we should aspire, a statutory mandate that we should obey, or some kind of a default mechanism that will be triggered if

36. *Id.* at 12, 58.

37. *Id.* at 94, 114. “Our society has basic commitments, including one to environmental quality, and those commitments should form the baseline for analysis.” *Id.* at 94.

38. *Id.* at 114.

certain context-specific obligations are not met.³⁹

Ruhl suggests that the baseline conditions of the ESA consist of listed species and their critical habitats,⁴⁰ and finds the practical behavioral expression of the baseline in the “no jeopardy” mandate of section 7.⁴¹ I would argue that we might have a three-way tie among Ruhl’s suggested baseline, section 7’s statutory mandate, or the “taking” prohibition of section 9. Alternatively, perhaps one could identify an affirmative behavioral mandate, such as the responsibility to conserve species in section 7(a)(1),⁴² or the ESA’s overarching goal of preserving ecosystems in section 2(b).⁴³ This uncertainty among possible baselines suggests that the baseline concept needs further elaboration before we can design appropriate safeguarding mechanisms.

B. THE HYBRID APPROACH

One of the principal methods that Farber advocates for protecting the environmental baseline is the “hybrid approach” which involves feasibility analysis with cost-benefit analysis as a backstop: “[W]e need to adopt a baseline rule of eliminating environmental risks as much as feasible. Only when the costs are grossly disproportionate to the benefits should we abandon this baseline.”⁴⁴

39. See discussion *infra* notes 77-104 and accompanying text.

40. Ruhl, *supra* note 11, at 908-13.

41. *Id.* at 910-15.

42. Section 7(a)(1) states, in relevant part, “All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species” 16 U.S.C. § 1536(a)(1) (2002).

43. Section 2(b) notes, in relevant part, that “[t]he purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” *Id.* § 1531(b).

44. FARBER, *supra* note 2, at 12.

[R]ather than approaching each case anew, we should start from the environmental norms that our society has unmistakably embraced. In concrete terms, this analysis translates into strong reliance on the feasibility approach to regulation Although “feasible” in some sense of the word, achievement of an environmental goal may sometimes involve costs that are grossly disproportionate to any plausible benefit. Thus, cost-benefit analysis may serve as a useful backstop for feasibility analysis to handle these situations. We should always begin, however, with a presumption in favor of protecting the environment except where infeasible or grossly disproportionate to benefits.

A possible criticism of the hybrid approach is that it conflates the normative concept of an environmental baseline with a practical methodology for protecting it—a methodology that, in some cases, may be ill-suited to the task. Furthermore, whether the approach is sufficiently protective may depend on the context and timing of the analysis—whether cost and feasibility considerations are to be considered before statutory enactment, included in statutory language, or even considered years later, after a regulatory program has sufficiently evolved. In essence, the implications of cost and feasibility considerations may vary considerably, depending on where we set the zoom or snap the photo. A brief look at the ESA and the national ambient air quality standards (NAAQS) may be instructive, as they represent two of the most significant efforts to establish environmental baselines in our existing regulatory scheme.

1. Health-Based Standards: The NAAQS and the Hybrid Approach

If integrated into statutory language, the feasibility approach would appear to exclude health-based environmental standards such as the NAAQS.⁴⁵ The NAAQS, which establish acceptably safe levels of pollutants in the ambient air, represent one of the strongest legislative efforts to establish an environmental baseline in all of pollution control law. Section 109 of the Clean Air Act (CAA) requires primary NAAQS to be set at the level “which in the judgment of the Administrator, based on [air quality] criteria and allowing an adequate margin of safety, are requisite to protect the public health.”⁴⁶

Drawing upon statutory language and legislative history, courts consistently have reaffirmed that EPA must exclude consideration of industry compliance costs and technological

Id. at 94.

45. Health-based standards such as the NAAQS require regulators to establish permissibly safe levels for particular pollutants in the ambient environment. In the case of the NAAQS, when these standards are implemented, emission limits are allocated among individual sources of pollution—the total area-wide loadings of the pollutant must not exceed the concentration established in the health-based standard.

46. 42 U.S.C. § 7409(b)(1) (2002). The air quality criteria must “accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant[s] in the ambient air.” *Id.* § 7408(a)(2).

feasibility from the NAAQS standard-setting process. In upholding the NAAQS for airborne lead in 1980, the D.C. Circuit stated that "Congress made it abundantly clear that considerations of economic or technological feasibility are to be subordinated to the goal of protecting the public health."⁴⁷ In 2001, when the question of compliance costs arose in conjunction with the nondelegation challenge to the NAAQS in *Whitman v. American Trucking*,⁴⁸ Justice Scalia, writing for a unanimous Supreme Court, reiterated that "[t]he text of section 109(b), interpreted in its statutory and historical context and with appreciation for its importance to the CAA as a whole, unambiguously bars cost considerations from the NAAQS-setting process, and thus ends the matter for us as well as the EPA."⁴⁹ Under the NAAQS framework, cost and feasibility considerations may come into play later, during the implementation phase, when individual states allocate emissions among the various polluting sources.⁵⁰ Although the command-and-control regulatory paradigm embodied by the CAA has no shortage of critics,⁵¹ emissions of nearly all of the most pervasive air pollutants in the U.S. have decreased dramatically since the 1970s, despite substantial growth in

47. *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130, 1153 (D.C. Cir. 1980). "[T]he absence of any provision requiring consideration of these factors was no accident; it was the result of a deliberate decision by Congress to subordinate such concerns to the achievement of health goals." *Id.* at 1149.

48. 531 U.S. 457, 472-73 (2001).

49. *Id.* at 471.

50. *See Union Elec. Co. v. EPA*, 427 U.S. 246, 266 (1976).

Perhaps the most important forum for consideration of claims of economic and technological infeasibility is before the state agency formulating the implementation plan. So long as the national standards are met, the State may select whatever mix of control devices it desires, and industries with particular economic or technological problems may seek special treatment in the plan itself. Moreover, if the industry is not exempted from, or accommodated by, the original plan, it may obtain a variance, as petitioner did in this case; and the variance, if granted after notice and a hearing, may be submitted to the EPA as a revision of the plan. Lastly, an industry denied an exemption from the implementation plan, or denied a subsequent variance, may be able to take its claims of economic or technological infeasibility to the state courts.

Id. at 266-67 (citations omitted). Total emissions loadings for designated pollutants in each region, however, must fall within the federally established health-based limits.

51. *See, e.g.*, Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333, 1341 (1985); Richard B. Stewart, *United States Environmental Regulation: A Failing Paradigm*, 15 J.L. & COM. 585, 585 (1996).

population, vehicle use, and economic activity.⁵²

Does the NAAQS-setting process comport with the hybrid approach? If technological feasibility were integrated during the standard-setting phase, we would lose the concept of a pure health-based standard entirely. If the NAAQS program were to be evaluated later, during the implementation phase, the program would likely pass muster under a feasibility test. Arbitrarily changing the zoom in this manner, however, calls into question whether the hybrid approach has value, a priori, as a decision-making guide.

2. The ESA and the Hybrid Approach

Similarly, had Congress tempered the language of sections 7 and 9 of the ESA to permit a balancing of feasibility considerations at the outset, the prospect of meaningful protection of endangered species would be limited. With a discretionary standard, prohibitions on taking or jeopardizing species on the brink of extinction would be difficult or impossible to enforce by regulators and third-party litigants alike.⁵³ Interestingly, “practicability” language in two statutory precursors to the ESA—the Endangered Species Preservation Act of 1966 and the Endangered Species Conservation Act of 1969—diminished the laws’ effectiveness to the extent that President Nixon, in his Environmental Message of 1972, concluded that existing law “simply does not provide the kind of management tools needed to act early enough to save a vanishing species.”⁵⁴

52. According to EPA data, with the exception of nitrogen oxides, which increased by 6%, emissions of the most pervasive air pollutants have declined dramatically between 1970 and 1995: lead emissions dropped by 98%; particulate matter emissions from industrial activity and fuel combustion declined by 79%; sulfur dioxide emissions by 41%, carbon monoxide emissions by 28% (even though total vehicle miles traveled more than doubled between 1970 and 1995); and volatile organic compounds by 25%. J. CLARENCE DAVIES & JAN MAZUREK, *POLLUTION CONTROL IN THE UNITED STATES: EVALUATING THE SYSTEM* 58 (1998). During this period, national ambient concentrations of all of the criteria pollutants subject to the NAAQS regime have declined. *Id.* at 60.

53. Endangered Species Preservation Act of 1966, 16 U.S.C. §§ 1531-1543; Endangered Species Conservation Act of 1969, Pub. L. No. 91-135, 83 Stat. 275. These earlier statutes conditioned federal agency obligations to avoid adverse impacts on endangered species upon consideration of what was “practicable” and “consistent with the primary purpose” of the agencies. *Id.*

54. MICHAEL J. BEAN & MELANIE J. ROWLAND, *THE EVOLUTION OF NATIONAL WILDLIFE LAW* 198 (1997).

Application of a feasibility standard to the ESA today would limit its potency considerably. Perhaps one could argue that Congress undertook a feasibility analysis before drafting the statute, when the initial decision was made to limit the ESA's protection to endangered or threatened species, despite the statute's broader goal of protecting ecosystems. Alternatively, if one is permitted to change the zoom and apply a feasibility test after the statute has sufficiently evolved, we are again left to ponder the value of the hybrid approach as a decision-making guide.⁵⁵

3. Sequence Matters

If feasibility considerations are incorporated at the outset, we may be trading away certain environmental benefits that could be achieved were they addressed in a more limited manner or at a later point, as in the case of the NAAQS. Where Farber views feasibility standards as sufficiently protective of an environmental baseline, they may in some cases serve to reflect the status quo.⁵⁶ Feasibility standards are just that—they are based on prevailing technology and often on industry's own estimates of expected compliance costs, which, as history shows, may far outpace actual costs.⁵⁷ By conflating the environmental baseline with a feasibility standard, we may overestimate the costs of environmental protection, because the baseline itself might otherwise serve to motivate industry's powers of technological innovation and cost containment—producing new technologies and systems unimaginable at the standard-setting stage.⁵⁸ To maintain the environmental baseline, we may need a behavior-forcing rule up front—the “eco” first and then the “pragmatism,” as it were.

55. See *supra* Part I.A.

56. Feasible means “capable of being done, executed or effected,” both technologically and economically. *Am. Textile Mfrs. Inst. v. Donovan*, 452 U.S. 490, 508-09 (1976) (quoting WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE 831 (1976)).

57. For example, OSHA predicted that the cotton dust standard would cost \$500 million in 1977 dollars, whereas industry predicted twice the cost and anticipated substantial technical hurdles. A later study indicated that the standard cost only \$250 million in 1983 dollars and provided greater health benefits than anticipated and competitiveness gains for industry. *Occupational Exposure to Cotton Dust*, 50 Fed. Reg. 51,121, 51,164-67 (Dec. 13, 1985); ROBERT V. PERCIVAL ET AL., *ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY* 479 (3d ed. 2000).

58. See discussion of vehicle emission rules *infra* note 60-62 and accompanying text.

In other words, sequence matters.⁵⁹

The following example illustrates that a feasibility standard, applied at the outset, can be a limiting concept. The 1970 CAA directed automotive manufacturers to curtail emissions of hydrocarbons and carbon monoxide from new vehicles by 90% within five years.⁶⁰ This was considered draconian at the time, as no technologies were available to achieve this reduction.⁶¹ In response to the rule, however, the auto industry produced the catalytic converter which was able to achieve the necessary reduction.⁶² Had technological feasibility been considered at the outset, Congress may never have enacted this standard, which, as it turned out (albeit with blood, sweat, and tears) was feasible. In this manner, feasibility may present a chicken-and-egg problem—we may not know what is feasible until certain pressure points are applied. The experience with catalytic converters illustrates that an unequivocal rule can generate innovation and modify the parameters of feasibility itself.

III. TAKING SLIPPAGE SERIOUSLY

On inspection it appears that eco-pragmatists themselves appreciate that a strong statutory mandate will, in the real world, be seen as a first step in a process, and not the ultimate enforcement criterion. This reinforces the importance of asking the question, what form should the opening maneuver in an extended bargaining process take?

In *Taking Slippage Seriously*, published two years after *Eco-pragmatism*, Farber introduces new concepts that may call into question whether it is always best to start from a deliberate middle. The slippage concept expresses the disparity between environmental regulatory mandates and actual enforcement.⁶³ Negative slippage includes lax enforcement, missed deadlines by regulators or regulated parties, and noncompliance by regulated parties.⁶⁴ Affirmative or positive

59. This perspective on the importance of sequencing in environmental standards was developed in conversations with Kirsten Engel, Senior Attorney at the Public Protection Bureau of the Massachusetts Office of Attorney General, former Associate Professor of Law at Tulane Law School.

60. PERCIVAL, *supra* note 57, at 607.

61. *Id.*

62. *Id.*

63. Farber, *supra* note 5, at 298.

64. *Id.* at 299.

slippage occurs when regulators help design alternatives to compliance with statutory mandates.⁶⁵ This includes decisions to substitute formal standards with negotiated agreements on a case-by-case basis.

Taking slippage into account, Farber notes that environmental standards often are merely the “opening gambits in a prolonged bargaining process” between agencies and regulated parties, rather than endpoints of compliance.⁶⁶ What looks like a regulatory command is only one stage in a larger and more flexible process—“the dynamics of the implementation process” cannot be ignored.⁶⁷ He notes that the fact that the standards are sometimes too harsh, with compliance costs outweighing the benefits, may be perfectly rational. The standards “may merely be the government’s opening demand in negotiations, and the final bargain is likely to be more favorable to the other side.”⁶⁸ Thus, the criticism that regulatory standards are too harsh loses some of its force. Farber elaborates upon various efficiencies operating outside of the regulatory structure that may prevent the inefficient application of strict rules:

A source with unusually high compliance costs has a greater incentive to resist government demands, while those costs may also have political ramifications such as lost jobs or a declining tax base that might limit the government’s regulatory enthusiasm. On the other hand, high environmental impacts will create more pressure on the government for enforcement of the standards, and increase the likelihood of a citizen suit. Consequently, we might expect that enforcement (and thus the ultimate outcome) will be strictest for sources with low compliance costs and high environmental impacts, and weakest for sources with high costs and low impacts. As a result, the costs and benefits of pollution control will be roughly matched, rather than making the level of pollution control independent of individual circumstances.⁶⁹

Jason Johnston observes similar efficiencies operating in the shadow of the formal regulatory structure. In evaluating the effect of interest groups on enforcement, Johnston notes that regional and local variation in the implementation of ostensibly uniform federal environmental laws is exactly what Congress intended—and is a function of regulators’ own cost-

65. *Id.* at 307.

66. *Id.* at 316-17.

67. *Id.* at 317-18.

68. *Id.* at 316.

69. *Id.*

benefit calculations and incentives.⁷⁰ Likewise, he acknowledges the give-and-take between regulators and Congress as an additional impetus for considering regulatory costs outside the formal framework. If an environmental regulator's own preferences ignore the costs of regulation, actual regulation may be determined by the congressional oversight function.⁷¹

IV. THE SYNERGY BETWEEN COMMAND AND INNOVATION

At first glance, recent market-based and "contractarian"⁷² experiments in developing incentive-based alternatives to traditional command-and-control systems might be presumed to be antithetical to the command paradigm. On review, however, they might provide additional support for the continuing importance of clear baseline commands. In the market-based or market-enlisting approach, efficiencies are said to be achieved through the marketplace, while in the contractarian approach, efficiencies are achieved through case-by-case negotiations and agreements between regulators and the regulated.⁷³ HCPs, Project XL, and SEPs fit into the

70. Jason Scott Johnston, *The Law and Economics of Environmental Contracts*, in ENVIRONMENTAL CONTRACTS: COMPARATIVE APPROACHES TO REGULATORY INNOVATION IN THE UNITED STATES AND EUROPE 291 (Eric W. Orts & Kurt Deketelaere eds., 2001).

[R]egulators implement and enforce regulations based on the perceived net benefit of the regulation. That is, even if promulgated regulations apply to a particular industry, they will not be enforced as promulgated if the regulator perceives low net benefits of enforcement. One thing that can account for low perceived net benefits is high perceived costs. . . . [C]osts include not only direct compliance costs but also threatened job losses and impaired international competitiveness.

Id.

71. *Id.* at 293. "If the regulator pushes too far in the environmental direction, members of Congress who represent" regulated parties may respond with oversight hearings, possible budget reductions, or substantive legislation. *Id.*; see also Emerson H. Tiller & Pablo T. Spiller, *Strategic Instruments: Legal Structure and Political Games in Administrative Law*, 15 J.L. ECON. & ORG. 348, 348-76 (1999); Mathew D. McCubbins & Thomas Schwartz, *Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms*, 28 AM. J. POL. SCI. 165, 165-76 (1984).

72. See David A. Dana, *The New "Contractarian" Paradigm in Environmental Regulation*, 2000 U. ILL. L. REV. 35, 36.

73. *Id.* at 37. See also Johnston, *supra* note 70, at 271-72, which states that

[e]nvironmental contracts are typically "voluntary" in a formal legal

contractarian model, while emissions trading programs, such as the CAA's acid rain program, comport with the market-based or market-enlisting model.

These public/private arrangements exhibit qualities similar to those sought through an eco-pragmatic analytic framework. They would not operate successfully, however, "but for" the existence of clear, statutory commands that may or may not comport with *Eco-pragmatism's* hybrid approach. The most successful emissions trading programs to date have depended upon strong regulatory baseline requirements: caps on total allowable emissions. Contractarian approaches, by definition, have default regulatory regimes,⁷⁴ some of which might be considered draconian and unsustainable under *Eco-pragmatism's* analytical framework.

A. NEW CONTRACTARIAN APPROACHES AND STATUTORY DEFAULTS

HCPs, Project XL, and the SEPs program—examples of the contractarian approach—illustrate the continued viability of the strong baseline, at least as a default. While some commentators maintain that contractarian regimes capitalize on the inefficiencies of command-and-control,⁷⁵ the transformation of mandatory rules into default rules reflects the political system's ability to create incentives that could not arise in the absence of a credible threat of enforcement of an underlying rule.⁷⁶

David Dana's use of the term, "contractarian regulation,"

sense and yet negotiated against the background of the status quo regulatory outcome that would otherwise obtain. A basic lesson from both game theory and the economic analysis of contracts is that the status quo or default outcome that will obtain if the parties don't reach agreement on a particular point will be a crucial determinant of their strategic behavior in bargaining to reach agreement. Environmental contracts are both contractual and regulatory. . . . But environmental contracts are also an alternative to traditional regulation.

74. Dana, *supra* note 72, at 47.

75. See, e.g., Johnston, *supra* note 70, at 286-87; Bradley C. Karkkainen, *Adaptive Ecosystem Management and Regulatory Penalty Defaults*, 87 MINN. L. REV. 943 (2003).

For an interesting discussion of the causal relationship between Farber's concepts of negative and positive slippage in the form of reinvention programs, see Shi-Ling Hsu, *A Game-Theoretic Approach to Regulatory Negotiation and a Framework for Empirical Analysis*, 26 HARV. ENVTL. L. REV. 33, 43-44 (2002).

76. See discussion *infra* notes 81-99 and accompanying text.

embodies the synthesis of regulation and innovation in these arrangements:

In the absence of the threat of the application of the default regime of command-and-control regulation, regulated entities would lack any economic incentives to negotiate alternative regulatory arrangements such as HCPs. . . . [I]n fact, we do not observe any contractarian regulatory activity where there are no applicable background command-and-control regulations in place or plausibly threatened to be in place. Thus, although it is true that contractarian regulation is a reform alternative to command-and-control regulation, it is also true that command-and-control regulation is a precondition for contractarian regulation.⁷⁷

Geoffery Hazard and Eric Orts similarly speak of environmental contracts as a form of regulation, or “regulatory contracts,” noting that the line between contracts and regulation is not always clear in practice—blurring the distinction between public and private law.⁷⁸ According to Hazard and Orts, the differences between contract and regulation, while real and important, are differences in degree rather than kind.⁷⁹ Likewise, Carol Rose has argued that “the public/private divide, taken alone, misses the substantive content” of various techniques or strategies of regulation.⁸⁰

1. ESA Section 9 and Habitat Conservation Plans

As noted above, section 9 of the ESA has provided the regulatory incentive for developing site-specific negotiated agreements in the form of HCPs under section 10. Interestingly, Congress amended section 10 in 1982 in response to a negotiation generated by the potential application of section 9 to a proposed development project in endangered Mission Blue butterfly habitat.⁸¹ In theory, if the government

77. Dana, *supra* note 72, at 47.

78. Geoffrey C. Hazard, Jr. & Eric W. Orts, *Environmental Contracts in the United States*, in ENVIRONMENTAL CONTRACTS, *supra* note 70, at 76-77.

79. *Id.*

80. Carol Rose, *Rethinking Environmental Controls: Management Strategies for Common Resources*, 1 DUKE L.J. 8-9 (1991), in ENVIRONMENTAL CONTRACTS, *supra* note 70, at 77.

81. Congress amended section 10 as a means of authorizing and validating a negotiated agreement resolving a dispute involving commercial development of San Bruno Mountain on the San Francisco peninsula. The various stakeholders had reached an agreement that would allow a limited number of incidental takes of the endangered Mission Blue butterfly in exchange for preserving and enhancing the remaining habitat. Because no ESA provision authorized the Fish and Wildlife Service to permit such a take, Congress added the incidental take permit provision to section 10, Endangered

and landowners cannot negotiate an HCP, landowners are open to suit under section 9. Donald Barry, former assistant secretary for Fish and Wildlife and Parks at the Department of Interior, has noted that the mere existence of the section 9 threat—potential civil and criminal penalties and the presence of a citizen suit provision—has made it more potent as a facilitator than the actual number of enforcement actions would suggest.⁸² Two years after publishing *Eco-pragmatism*, Farber, in discussing various efforts to reinvent environmental regulation, similarly noted the essential role of section 9 in motivating the negotiation of HCPs: “The newer initiatives . . . build on the older approach. Without the background threat of regulatory enforcement upheld in *Sweet Home*, negotiations would fail for lack of incentives.”⁸³

Building on the literature of environmental contracting⁸⁴ and default rules,⁸⁵ Brad Karkkainen’s contribution to this

Species Act Amendments of 1982, Pub. L. No. 97-304, 96 Stat. 1411 (1982), and the FWS subsequently approved the San Bruno Mountain plan as the first HCP. MICHAEL J. BEAN ET AL., RECONCILING CONFLICTS UNDER THE ENDANGERED SPECIES ACT: THE HABITAT CONSERVATION PLANNING EXPERIENCE 52-55 (1991); see also Jennifer Jester, *Habitat Conservation Plans Under Section 10 of the Endangered Species Act: The Alabama Beach Mouse and the Unfulfilled Mandate of Species Recovery*, 26 B.C. ENVTL. AFF. L. REV. 131, 158-59 (1998); Albert C. Lin, *Participants’ Experiences with Habitat Conservation Plans and Suggestions for Streamlining the Process*, 23 ECOLOGY L.Q. 369, 375-76 (1996).

82. See Barry, *supra* note 22, at 130-31.

83. Daniel A. Farber, *A Tale of Two Cases*, 20 VA. ENVTL. L. J. 33, 45 (2001).

84. See, e.g., Dana, *supra* note 72, at 36; Johnston, *supra* note 70, at 304. For a discussion of the San Bruno Mountain HCP as an example of environmental contracting, see Johnston, *supra* note 70, at 273-75.

85. See, e.g., Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 87 (1989); Randy E. Barnett, *The Sound of Silence: Default Rules and Contractual Consent*, 78 VA. L. REV. 821, 825 (1992); G. Richard Shell, *Contracts in the Modern Supreme Court*, 81 CAL. L. REV. 431, 444 (1993). Steven J. Ware provides helpful commentary on the distinction between default rules and mandatory, or immutable, rules. Stephen J. Ware, *Default Rules From Mandatory Rules: Privatizing Law Through Arbitration*, 83 MINN. L. REV. 703, 706 (1999). Default rules are government-created rights and duties that are privatizable, but they will govern unless parties contract out of them. *Id.* Mandatory rules are government-created rights and duties that cannot be avoided by contract. *Id.* at 706. Ware argues that although the prevailing view is that the preponderance of state and federal law consists of mandatory rules and is therefore not privatizable, much of what is widely-believed to be mandatory is effectively default and privatizable. *Id.* at 707; see also W. David Slawson, *The Futile Search for Principles for Default Rules*, 3 S. CAL. INTERDISC. L.J. 29, 29 (1994).

Symposium describes how section 9 has emerged as a subspecies of default rule to which a penalty attaches: a regulatory penalty default.⁸⁶ The literature characterizes default rules as mandatory rules that are privatizable—the rules will govern unless parties contract around them by bargaining with regulators.⁸⁷ Default rules therefore are mandatory rules that can be reconfigured into incentive systems when regulated entities are given the option to avoid compliance through alternative negotiated arrangements.⁸⁸ Karkkainen notes that although the section 9 “no take” prohibition initially was conceptualized as an ordinary mandatory rule, it provided such potentially harsh consequences for affected landowners that it was easily converted into a penalty default by exploiting the variance provision of section 10 already available in the statute.⁸⁹ He describes the Clinton administration’s aggressive expansion of HCPs in the mid to late 1990s as an effort to reconfigure conventional environmental regulation into a penalty default regime.⁹⁰ In this process, the previously obscure permit provision of section 10 was transformed into the “centerpiece of [the administration’s] endangered species and ecosystem conservation policy.”⁹¹ These contractual arrangements may not have occurred but for the threat of section 9’s strict taking prohibition. While Karkkainen questions the efficiencies of the underlying regulatory regime and recent administrative responses,⁹² he agrees with the deep logic of these new arrangements, noting that they can be structured to result in a more ambitious set of affirmative conservation measures than would have been obtained through enforcement of the prohibitory “do no harm” rule.⁹³

Farber describes the reconfiguring of mandatory rules into default rules as an aspect of positive or affirmative slippage. Farber, *supra* note 5, at 315-16 (“Often, so-called standards may serve as threat points in negotiation or as penalty defaults that force information disclosure. The optimum ‘standards’ for these purposes may well be quite different from (and often harsher than) the ultimate performance level that we wish to attain.”).

86. Karkkainen, *supra* note 75, at 944, 975-83.

87. See, e.g., Ware, *supra* note 85, at 706.

88. *Id.*

89. Karkkainen, *supra* note 75, at 972-73.

90. *Id.* at 970-75.

91. *Id.* at 970.

92. *Id.* at 983; see also Johnston, *supra* note 70, at 286-88.

93. Karkkainen, *supra* note 75, at 982-83.

2. Project XL

Like HCPs, other contractarian arrangements rely on a regulatory default to motivate firms to negotiate alternative means of promoting environmental results. The premise of Project XL, a multi-media program developed by EPA in the 1990s, is that regulators and regulated entities will negotiate site-specific environmentally-protective agreements to relieve the regulated entities of relevant statutory requirements.⁹⁴ In this manner, environmental contracting under Project XL is premised on a regulatory default. Like HCPs, these negotiated commitments are intended to produce results that are equal or superior to performance under the relevant regulatory requirements. Although Project XL has drawn substantial criticism⁹⁵ and qualified praise,⁹⁶ it represents further support for the principle that an enforceable regulatory backstop is an essential ingredient of a viable environmental contracting program.

3. Supplemental Environmental Projects (SEPs)

Supplemental Environmental Projects, or SEPs, another

94. Dana, *supra* note 72, at 40; see also Dennis D. Hirsch, *Understanding Project XL: A Comparative Legal and Policy Analysis*, in ENVIRONMENTAL CONTRACTS, *supra* note 70, at 115; Thomas E. Caballero, *Project XL: Making It Legal, Making It Work*, 17 STAN. ENVTL. L.J. 399, 403 (1998); Bradford C. Mank, *The Environmental Protection Agency's Project XL and Other Regulatory Reform Initiatives: The Need for Legislative Authorization*, 25 ECOLOGY L.Q. 1, 20 (1998); Rena I. Steinzor, *Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control*, 22 HARV. ENVTL. L. REV. 103, 122-23 (1998).

95. To date, there have been few consummated XL agreements. Congress has not enacted any statutory authorization for the XL program or developed statutory standards for issuing XL permits. Critics claim that the XL agreements give too much to business in return for uncertain environmental benefits. In particular, there is confusion over the criteria the EPA uses in determining whether a project will "achieve environmental performance that is superior to what would be achieved through compliance with current and reasonably anticipated future regulation." Rena I. Steinzor, *Regulatory Reinvention and Project XL: Does the Emperor Have Any Clothes?*, 26 ELR 10,527, 130-40 (1996) (quoting Regulatory Reinvention (XL) Pilot Projects, 60 Fed. Reg. 27,282, 27,287 (May 23, 1995)); see also Steinzor, *supra* note 94, at 124 (discussing the shortcomings of various Project XL agreements and attendant procedural problems).

96. See Dennis D. Hirsch, *Project XL and the Special Case: The EPA's Untold Success Story*, 26 COLUM. J. ENVTL. L. 219, 222 (2001); Joshua Secunda & Lawrence E. Susskind, *"Improving" Project XL: Helping Adaptive Management to Work Within EPA*, 17 UCLA J. ENVTL. L. & POL'Y 155, 158 (1998-99).

example of the contractarian approach, similarly illustrate the synergy between regulation and bargained-for innovation. SEPs are novel forms of settling enforcement actions for violations of environmental regulations.⁹⁷ In these settlements, the government and violators of pollution control statutes negotiate agreements whereby the violator undertakes various environmentally beneficial measures instead of paying a monetary penalty.⁹⁸ Like HCPs and Project XL, the ability of SEPs to satisfy process concerns and bring about measurable environmental benefits is still in question.⁹⁹ But they nevertheless exhibit a similar logic—the replacement of regulatory requirements with negotiated, site-specific agreements, relying on the regulatory requirement as a default condition.

B. THE MARKET-BASED APPROACH AND STATUTORY CAPS: SULFUR DIOXIDE EMISSIONS TRADING PROGRAM

Market-based or market-enlisting programs like the Title IV sulfur dioxide emissions trading program created by the 1990 amendments to the CAA rely on a system of regulatory caps as well as monetary penalties for noncompliance.¹⁰⁰ Several commentators have emphasized the importance of the regulatory cap and noncompliance sanctions as necessary incentives to trade in a cost effective manner.¹⁰¹ In the sulfur dioxide trading program, Congress set the initial cap at a level that represented one half of existing power plan emission levels¹⁰²—a goal that might not have appeared feasible to utilities at the time. The cost of pollution allowances, at least

97. Dana, *supra* note 72, at 43-44.

98. *See id.*

99. *See* David A. Dana, *The Uncertain Merits of Environmental Enforcement Reform: The Case of Supplemental Environmental Projects*, 1998 WIS. L. REV. 1181, 1191. *See also* Farber, *supra* note 5, at 309-11.

100. *See, e.g., New Strategies for a New Market: The Electric Industry's Response to the Environmental Protection Agency's Sulfur Dioxide Emission Allowances Trading Program*, 47 ADMIN. L. REV. 469, 470-71 (1995) [hereinafter *New Strategies*]. Because noncompliance must be prohibitively unattractive for effective operation of the program, a penalty based on tonnage excesses over a given year's allowances was included. *See, e.g.,* Brian L. Ferrell, *Recent Developments, The Clean Air Act Amendments of 1990 and the Use of Market Forces to Control Sulfur Dioxide Emissions*, 28 HARV. J. ON LEGIS. 235, 244 (1991).

101. *See, e.g.,* Ferrell, *supra* note 100, at 244; *New Strategies, supra* note 100, at 470.

102. *New Strategies, supra* note 100, at 471.

in the first decade, has turned out to be far lower than originally anticipated. Although this difference has been attributed primarily to fuel switching rather than technological innovation at the outset, it is nevertheless clear that, had feasibility been considered in setting the cap, higher emission levels likely would have been permitted under the system. The CAA's Title IV program contrasts with the EPA's proposed Open Market Trading Program,¹⁰³ which would not impose a cap on total emissions but would rely on permit-by-permit allocations instead. Due to the absence of a cap, the Open Market Trading Program has drawn criticism for its inability to promote incentives for effective trading.¹⁰⁴

CONCLUSION

Eco-pragmatism rests on the premise that the social sustainability of environmental law requires the integration of environmental and economic factors. While this premise is axiomatic, the timing of the integration process may have consequences and merits consideration. Environmental pragmatism should not necessarily be wedded to the notion of starting from a "deliberate middle," but should recognize that it may be equally pragmatic to start from a clear rule and adjust, recognizing the feedback loops inherent in the political process, and the various incentive structures operating on regulated entities, outside interest groups, and regulators themselves.

Although excessive rigidity is not a good idea, there is a logic to preserving clear rules. Knowing that one element of pragmatism is action/reaction in the field, and that environmental standards are often the opening maneuvers in a longer negotiation process, we may need to embrace clearer positions at the beginning of the dance. Moreover, certain nondiscretionary statutory commands or procedures, which initially might appear unforgiving and thus unsustainable under the eco-pragmatic framework, may serve as preconditions for developing new kinds of pragmatic, market

103. Open Market Trading Rule for Ozone Smog Precursors, 60 Fed. Reg. 39, 668, 39, 670 (Aug. 3, 1995) (to be codified at 40 C.F.R. ch. 1).

104. The EPA's Office of Inspector General released a recent evaluation of the program titled "Open Market Trading Program for Air Emissions Needs Strengthening." EPA Report No. 2002-P-00019, at http://www.epa.gov/oigearth/reading_room/omt.pdf (Sept. 30, 2002). Environmental groups have opposed the EPA proposals to approve open-market programs in various states.

and contract-based arrangements. Although starting from a deliberate middle may in some cases be the best course, *Eco-pragmatism* sets the stage for future discussions of the various incentive systems operating on key players.

I look to Farber's more recent writings to uncover hints of a reconciliation between *Eco-pragmatism* and the political process. Farber's writings on slippage, which characterize statutes as "the opening gambits in a prolonged bargaining process,"¹⁰⁵ may stimulate re-thinking of the relationship between baseline commands and sustainable environmental regulation.

105. Farber, *supra* note 5, at 317.