A recent book on public choice economics begins by recounting Pablo Picasso’s observation on his portrait of Gertrude Stein: “Everybody thinks she is not at all like her picture, but never mind, in the end she will manage to look just like it.”1 This enigmatic statement can illustrate several important points. It may mean that Picasso captured the essence of Gertrude Stein so skillfully that, in the end, the inescapable reality of the portrait will dawn on us. Or, it may mean that we will be so captivated by Picasso’s unusual way of looking at things that we begin to look at his subject that way too, even if, in fact, the portrait is not at all realistic. These competing interpretations make the statement deeply paradoxical, but either way we appreciate how powerful an influence are the lenses—physical, intellectual, and artistic—through which we see the world. And, perhaps a more cutting conclusion, we appreciate that once drawn to a lens that we believe “should” be used, the line between what should be, and what “is,” is blurred forever.

So it is with the Third Cummings Colloquium, “The Rents of Nature: Special Interests and the Puzzle of Environmental Legislation.” The Colloquium seeks to highlight one particular lens, broadly speaking the lens of rational-choice economics, through which to look at federal environmental legislation. And, paraphrasing Picasso, the Colloquium’s reference to “the Rents of Nature” may mean that, if we subscribe to the theoretical techniques of rational-choice economics, then environmental law “will manage to look just like it.” Yet this may not be a good thing. For the Colloquium’s title also suggests that environmental legislation is a “puzzle” to rational choice theorists, which should make us cautious before we choose the rational-choice lens in the first place. Thus, like Picasso’s statement, the title of this year’s Cummings Colloquium is paradoxical.

* Professor of Law, University of North Carolina. Special thanks go to my colleague Pete Andrews for his typically insightful comments on an earlier draft. All errors, of course, are my own. The World-Wide Web version of this article can be found at <http://www.law.duke.edu/journals/9DELPFHornstein>.

1. JERRY L. MASHAW, GREED, CHAOS AND GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW 1 (1997).
I read Chris Schroeder’s paper as an attempt to address this paradox. Rather than try to have it both ways, Chris stakes out a bold proposition: that the major federal statutes adopted between 1969 and 1973, which he calls the Beginning Environmental Statutes (“BEST”), were “the product of individuals rationally pursuing egoistic preferences” and were not adopted on a reasoned belief that the policies embodied in them were “best for the country as a whole . . . .” Moreover, for much of his paper, Chris focuses even more starkly only on the importance of “material egoism.” Chris defines “material egoism” to exclude “warm glows and psychic enjoyment of the environment,” and, instead, only to encompass human preferences that directly produce “income or wealth effects” or indirectly provide “something that can be readily converted to income or wealth or that substitutes for something that would have to be purchased.”

Although at times Chris seems merely to be playing devil’s advocate, the thrust of his position is understandable. Chris plainly signals his admiration for the theoretical power underlying Mancur Olson’s *Logic of Collective Action* and attempts to set forth both a theoretical and empirical account of the BEST which is consistent with it. In the main, most of Chris’ paper is offered as a contribution to the descriptive literature. It is intended to speculate on how the BEST reflects the workings of rational-choice, rather than deliberative or republican-moment, models of political life.

But I also read Chris’ paper as addressing a normative argument. The argument arises when we intertwine the descriptive question of why we have the environmental laws that we do and its inevitable, if unintended, twin: the normative question of whether we should have the environmental laws that we do. For if it could be shown that, as

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3. Id. at 43.
4. See id at 40. “It is useful to develop the case for the BEST, however, by first examining the nature of the purely material egoistic account.” Id. at 44-45. See also id. at 56 (reemphasizing “material” preferences).
5. Id. at 40-41.
6. Chris confesses near the conclusion of his paper that he is “someone who believes that our environmental laws are attempts to advance defensible principles and not just self-interest, notwithstanding the argument” he makes. Id. at 57. Even when defending his argument in its most bold form, Chris admits that his rational-choice account is at most a “plausible” story that is “admittedly incomplete.” Id.
an historical matter, environmental legislation reflects the self-interested machinations of special-interest politics rather than an honest stab at procuring the public good, then we can surely expect that some will make the normative case that this whole body of legislation is suspect.\footnote{For example, Marc Landy and Mary Hague argue that an “unholy alliance” between environmental groups and the waste treatment industry has led to a Superfund regime that is “positively harmful to the environment.” Marc K. Landy & Mary Hague, The Coalition for Waste: Private Interests and Superfund, in ENVIRONMENTAL POLITICS: PUBLIC COSTS, PRIVATE REWARDS 67, 74-81 (Michael S. Greve & Fred L. Smith, Jr. eds., 1992).} As I observed in an earlier article, “if either interest group theory or public choice theory is even roughly correct, with the implication that political outcomes reflect the relative power of special interests rather than public-regarding deliberation, then one should immediately question whether environmental policymaking . . . should be anchored so firmly in politics, be they those of Congress or the Executive.”\footnote{Donald T. Hornstein, Lessons from Federal Pesticide Regulation on the Paradigms and Politics of Environmental Law Reform, 10 YALE J. ON REG. 369, 406-07 (1993) (citations omitted).}

Chris anticipates and addresses this argument by asking in the last part of his article, “What’s Wrong With Self-Interested Environmentalism, Anyway?”\footnote{Schroeder, supra note 2, at 56-59.} Here, Chris’ paper raises what I view to be one of its most valuable contributions. He argues that the self-interestedness that he believes explains environmental law is nothing about which to be ashamed and, more to the point, is more consistent with the overall public good than the selfish economic rents that less careful critics might claim to underlie environmental legislation.\footnote{See id.} In so arguing, Chris reminds even the most committed non-public-choice theorist that environmental law is not necessarily at war with sound economic sense.

We all owe Chris a debt for training his analysis in this piece, and in several previous works,\footnote{Chris has addressed this issue before. See, e.g., Christopher Schroeder, Foreword: A Decade of Change in Regulating the Chemical Industry, 46(3) LAW & CONTEMP. PROBS. 1 (1983); Christopher H. Schroeder, In the Regulation of Manmade Carcinogens, If Feasibility Analysis is the Answer, What is the Question? 88 MICH. L. REV. 1483 (1990).} on a seriously understudied question: how can we account politically for a significant body of legislation that seems to fly in the face of many leading rational-choice explanations of politics? As Richard Stewart, another serious scholar of environmental law recently put it:

\begin{quote}
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\footnotesize
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This still leaves, however, the public choice puzzle of how the commitments of individuals to environmental protection can be mobilized to offset the organizational advantages enjoyed by firms, unions, and other organized economic interests. . . . These questions . . . require far more study. The fact of strong and politically effective general public demand for federal environmental regulation remains to be fully explained.  

The Descriptive Claim—Empirical and Theoretical Problems

Technically speaking, Chris’ solution is largely to model the success of environmental groups as “assurance games” rather than as “prisoner’s dilemmas” (“PDs”). In the conventional, PD account, polluters should have an easier time organizing politically than environmentalists because polluters are motivated to cooperate to avoid the concentrated costs of anti-pollution measures that would be imposed on them by environmental legislation. Environmental groups, in contrast, remain relatively “latent” because self-interested individual members realize that they can enjoy the benefits of anti-pollution legislation without actually participating in political action. Because such legislation will clear the air and water for everyone (environmental protection is a “pure” public good from which the public at large cannot be excluded), members of the general public calculate that their optimal course of action is to free-ride on the efforts of others. This free riding is a form of non-cooperative behavior that, while individually rational, in the end proves disastrous for all—and hence the grim “logic” of collective action predicts that “environmental groups will remain latent.” Political scientist Elinor Ostrom has observed that the free-riding at the heart of the collective-action problem is a variation of the temptation to defect that animates the Prisoner’s Dilemma in the economic literature.  

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14. In the Prisoner’s Dilemma, two prisoners are being interrogated separately. If both confess, each is sentenced to a prison term of eight years. If neither confesses, each is convicted of a lesser offense and sentenced to a prison term of one year. If just one confesses and implicates the other, the confessor is released but the other prisoner is sentenced to a prison term of ten years. The paradox of the problem is that, under these conditions, each prisoner’s best strategy is to confess, which results in a suboptimal result (two eight-year prison terms) for both. See Eric Rasmusen, Games and Information: An Introduction to Game Theory 17 (2d ed. 1994).

15. Schroeder, supra note 2, at 35.

Enter the “assurance game.” Not all collective-action situations follow the logic of the Prisoner’s Dilemma. In an assurance game, individual members will contribute to the collective good once they are assured that all other individual members—or, perhaps, enough other individual members—will also contribute.17 Chris refers to this dynamic as the “Ben Franklin Effect,” following Franklin’s advice to fellow signers of the Declaration of Independence that “we must all hang together or we will assuredly all hang separately.”18 In the economic literature, this dynamic is illustrated by the “Stag Hunt” game.19 In the Stag Hunt, a group of hunters must cooperate to capture a stag. All hunters prefer the large stag over smaller quarry such as hare. If a hare passes by, any one of the hunters may take unilateral action to catch and eat the hare, but in so doing that hunter will deprive the others of the opportunity of capturing a stag (remember, it takes the collective efforts of all the hunters to capture the stag). Hence, the contingent nature of deciding how to coordinate their actions and choose individual strategies: Hunter A will cooperate only so long as he believes all others will cooperate. But this creates a chance for collective success. The Stag Hunt offers the possibility of more hopeful outcomes than are predicted by the grim, PD-inspired logic of collective action. For if individuals are assured that everyone else in the group will “hang together,” then they will join in, rather than shirk, the collective endeavor.

According to Chris, something like the Stag Hunt captures the dynamic of collective action in the environmental movement during the formative period, 1969-1973, when the BEST were adopted. For proof, Chris offers algebra and some general statistical information. To explain why environmentalists were able credibly to signal legislators that they controlled deliverable, environmental votes, Chris offers this algebraic formula for the public’s willingness to lend electoral support to environmental causes: \( R = pb - c + d \), where \( R \) represents the “reward from voting” for environmental candidates and therefore the willingness of individuals to lend a hand in the collective political effort; \( pb \) represents the likely benefits to be had for

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18. Schroeder, supra note 2, at 48.
voting green, with b representing the concrete individual benefits of environmental protection, discounted by p, the likelihood that one’s vote will actually be decisive and make a difference. To this calculation of material benefits, individuals will presumably subtract c, the costs of voting and, we’re told, will also add d, the (non-material) benefits of voting “per se.”

Frankly, I find the algebra a bit distracting. The main focus should be on how individual environmentalists overcame their free riding (PD) problems and cooperated in a collective political effort and, according to Chris’ hypothesis, did so solely due to a calculation that this was the best way to satisfy their direct, material egoist preferences. Thus, Chris finds it immediately necessary to ignore the d term, even though he acknowledges that his analysis will be “ultimately less plausible than accounts that include d . . . .” This leaves pb to represent the material egoist preferences on which Chris’ hypothesis depends. Chris spends several pages, and introduces two additional algebraic equations, trying to build up the sum of these two variables—a complicated effort that I find somewhat ironic for someone who so self-consciously wants a “parsimonious,” non-messy explanation.

To simplify things, it really is the p term that deserves most of our attention. For, however large might be the individual benefits, b, of a cleaner environment, these benefits will accrue equally to those who lend a hand to the collective effort and to those who free-ride. Thus, I find Chris’ discussion on the increased public-health benefits of environmental protection to be somewhat beside the point, at least if the point is to focus on why individuals cooperate to obtain this collective good. Chris acknowledges the point when he observes that, “[i]n terms of the logic of collective action, rising individual benefits from collective action may or may not produce collective action. . . . So long as the individual believes her contribution is insignificant, even large values for b will not produce individual action to advance collective interests.” Although Chris later speculates on a possible interaction between b and p which allows “political entre-

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20. See Schroeder, supra note 2, at 44.
21. See id.
22. Id. at 45.
23. See id. at 45-51.
24. Id. at 41.
25. See id. at 45-47.
26. Id. at 47.
preneurs” to produce a sum that is larger than the parts, much of Chris’ argument is found in a four-page discussion of the p variable.

The p term is what makes the Stag Hunt so central to Chris’ hypothesis. Recall that people will cooperate in collective action in the Stag Hunt so long as they are assured that everyone else will also cooperate. In short, when everyone perceives that they are all indispensable, they will “hang together” rather than hang separately. In Chris’ formula, the p term represents the likelihood that “one’s vote will actually be decisive and make a difference.” So the question becomes, can we persuasively model the success of environmental groups circa 1969-1973 as a series of successful Stag Hunts?

Chris’ paper contributes to this question more by the care in which he frames it rather than any attempt to provide empirical evidence of an answer. There is almost no discussion of individual environmental interest groups and their linkage to the legislative battles behind the BEST. Chris does not distinguish the organizational techniques and success of such longstanding groups as the Sierra Club (founded in 1892), the National Audubon Society (founded in 1905) and the National Parks and Conservation Association (founded in 1919), and what might be thought of as second-generation groups such as the Environmental Defense Fund (founded in 1967) and the Natural Resources Defense Council (founded in 1970). Yet even a little historical inquiry would be extremely helpful. For example, it is difficult to square the core organizational attractiveness of such longstanding groups as the Sierra Club, which originally organized over aesthetic and recreational interests in wilderness and wildlife, with the importance Chris sees in public-health issues as a necessary ingredient of organizational success.

Moreover, the historical record of even the second-generation groups that formed during the BEST period reveals that such groups owed much of their early success to their use of litigation (rather than political threats of voter reprisals) and to financial sponsorship by external private foundations rather than membership support. A l-

27. Id. at 50.

28. See id. at 47-50.


30. See id. at 118.

31. See id. at 119 (both EDF and NRDC “used litigation as the instrument of choice for reform”).

32. See John Mark Hansen, The Political Economy of Group Membership, 79 A M. P O L.
though it is not inconceivable that something like the “Ben Franklin effect” can explain the success of such group activity in the 1960s and 1970s as civil-rights boycotts and marches in which solidarity was of paramount importance,33 Chris’ reference to the hundreds of thousands of people who joined national environmental organizations and the “potential voting bloc . . . of 4 to 5 million individuals” actually detracts from his point that any individual in such a large group would in fact feel indispensable.34

There lurk other empirical issues as well. For example, given Chris’ Stag Hunt thesis, one would expect that local or state environmental groups would have organized especially effectively. After all, local environmental issues concern fewer people and, within the smaller group, each individual member might very well feel indispensable and thus contribute to the collective effort at the state and local level. Yet it was precisely the failure of the states to come to grips with environmental problems that led to the federalization of environmental law during 1969-1973.35 Moreover, Chris’ emphasis on the importance of material, public-health benefits to environmental group formation is difficult to square directly with popular support for such non-public-health-oriented BEST statutes as the Wild and Scenic Rivers Act (1968),36 the Marine Protection, Research and Sanctuaries Act (1972),37 and the Endangered Species Act (1973).38 My own study of the politics underlying the 1972 amendments to the federal pesticide law indicates that popular outrage at the excesses of the pesticide industry and its governmental supporters, and not any special change in environmental group dynamics, explains at least some of the legislative activity.39

33. In a marvelous empirical study, political scientist Dennis Chong documents how assurance-game models help explain the tactics and organizational success of civil rights groups during this time period. See Dennis Chong, Collective Action and the Civil Rights Movement (1991).
34. Schroeder, supra note 2, at 51.
35. See, e.g., Robert V. Percival et al., Environmental Regulation: Law, Science, and Policy 882 (2d ed. 1996) (“[I]t is not surprising that the 1965 [Clean Water] Act produced only slow progress. By 1972 only about one-half of the states had water quality standards . . . .”).
39. See Hornstein, supra note 7, at 422-435. Other explanations also exist for the legislative history of these amendments. See, e.g., Angus MacIntyre, A Court Quietly Rewrote the
To be sure, there are times when there is nothing more practical than a good theory. And, perhaps due to the weak historical record, Chris theorizes that environmental groups succeeded because political entrepreneurs were able to offer “selective incentives” which, in turn, overcame the tendencies of individual environmentalists to free-ride. Here, Chris taps into an emerging, and interesting, explanation of group behavior. But the selective incentives to which he refers threaten to undermine the preference for material ego satisfaction his model is supposed to demonstrate. For, to provide these selective incentives, Chris resorts to the $d$ term in his algebraic equation that he had earlier set aside. This time, however, he asks us to consider the possibility that the $d$ term includes the “positive feelings [individuals experience] when acting in concert with others whose values they respect and share and whose opinions they value.” Further, Chris argues that these “positive feelings” are produced by political entrepreneurs who create group solidarity by disseminating information about environmental threats, choosing well-defined courses of action for the group, and creating feelings of “altruism” toward other group members.

Although I think that Chris is on to something by suggesting the rise of an environmental norm with which people identified and, perhaps, which generated altruistic feelings toward other group members, his resort to the $d$ term certainly signals the collapse of his claim that it was direct, material egoism that underlay the BEST. Even his modified claim, one that expands the “permissible range of egoistic preferences beyond material ones alone,” now rests on a chicken-egg problem. Which came first, the esteem of well-informed group members that we desire, or a shared sense of political solidarity that makes us, in the first place, esteem others who hold our views? The point is not simply that the $d$ term, as Chris redefines it, is tautological, it is rather that the $d$ term may include morally based political norms.

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40. See, e.g., Richard H. McAdams, Cooperation and Conflict: The Economics of Group Status Production and Race Discrimination, 108 Harv. L. Rev. 1003, 1023-29 (1995) (explaining how selective incentives, such as esteem for one’s peer group, can explain the persistence of inefficient racial discrimination by white southerners).
41. See Schroeder, supra note 2, at 45.
42. Id. at 53.
43. Id. at 53-54 & n.63.
44. Id. at 53.
45. See id.
convictions at odds with Chris’ promise that the collective action problem would be solved solely by egoism. Thus, I do not necessarily disagree with Chris that political entrepreneurs can so animate the variable that it creates a dynamic strong enough to overcome the temptation to free-ride. And I may also agree with Chris that environmentalism may be attractive in part because of its ideological relationship to “progressivism and optimism.” The significant point is that environmental groups become animated for reasons other than the satisfaction of selfish economic interest, and the public policies that they support are far more than the narrow economic “rents” seen by rational-choice theorists. Although this hardly means that all environmental policies are wise, it does mean that we disagree about the wisdom of such policies because we all are capable of caring deeply about public issues per se.

Empirical evidence seems to support this non-economic explanation for the vitality of environmental interest groups. In a study of such groups, one set of commenters has found:

Evidence from survey research suggests strongly that two elements are crucial in maintaining membership in environmental organizations: the perceived existence of threats to either one’s own environment or to the general environment of the nation and the appeal of an ideology that corresponds with the concerns of the individuals to whom appeals for membership are made. Selective benefits, available only to members, such as opportunities to acquire coffee-table books, participate in sponsored outings, and obtain credit cards, provide substantial income to an organization like the Sierra Club, but they do not account for the growth and maintenance of membership strength.

Moreover, no single explanation can explain the motivating forces of different environmental groups. Some of the second-generation groups, for example, are animated by a belief in science and “seek to demonstrate expertise through technical mastery of the logic of their positions on toxic substances and air quality.” Other environmental groups “tend to eschew science and believe their principal role is that of advocacy and publicity. The Sierra Club provided landmark examples of advocacy with spectacular public relations campaigns that blocked dams in Dinosaur National Monument in

46. See id. at 55.
47. Ingram et al., supra note 26, at 121.
48. Id. at 126.
1956 and Grand Canyon National Park in 1968.\textsuperscript{49} A third generation of grassroots environmental organizations has arisen with especially strong morally-based positions on distributional issues of environmental justice or expressive values on citizen participation in decisions that affect their lives.\textsuperscript{50} As Lois Gibbs, the well-known founder of the Citizens’ Clearinghouse for Hazardous Waste once put it, “The Big Ten [environmental organizations] approach is to ask: What can we support to achieve a legislative victory? Our approach is to ask: What is morally correct?”\textsuperscript{51} Environmental organizations are more diverse than many people realize and reflect a wide spectrum of public ideologies.\textsuperscript{52} Even in such anti-environmental public movements as the “Wise Use” or “Property Rights” movements, one sees deeply held political views about individual liberty and not simply a conglomerate of money-oriented political action committees.

If all this means that Chris has overstated his point, I don’t want to overstate mine. There is plenty of room for self-interest to operate within the borders of environmental law and there are plenty of examples of people supporting environmental laws at least in part for selfish, rather than public-regarding, reasons. The eastern states, for example, may have supported the Clean Air Act’s Prevention of Significant Deterioration (PSD) provisions in part out of a sense of economic competition with western states whose regional development might be relatively disadvantaged by the PSD program.\textsuperscript{53} Du Pont

\begin{itemize}
  \item \textsuperscript{49} Id. at 126-127.
  \item \textsuperscript{50} See id. at 120-121.
  \item \textsuperscript{52} Lois Gibbs recounts a revealing moment that occurred at a meeting between grassroots environmental activists and representatives of large, national environmental organizations:
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    It was hilarious . . . . People from the grassroots were at one end of the room, drinking Budweiser and smoking, while the environmentalists were at the other end of the room eating yogurt. We wanted to talk about victim compensation. They wanted to talk about ten parts per billion benzene and scientific uncertainty. A couple of times, it was almost war.
  \end{quote}
  Id.
  \item \textsuperscript{53} Engel writes:
  \begin{quote}
    The congressional voting record on the PSD requirements shows that the provisions were supported by dirty air states that served to lose in the competition for industry in the absence of such amendments (northeastern and midwestern states), and opposed by states serving to gain in their absence (southern and western states). This demonstrates that passage of the requirements was at least somewhat motivated by a desire to eliminate locational competition.
  \end{quote}
\end{itemize}
may have supported the Montreal Protocol’s phase-out of chloro-fluorocarbons (CFC’s) in part because it had a head start on commercializing non-CFC alternatives. The hazardous waste treatment industry may support stringent toxic waste regulations under the Resource Conservation and Recovery Act (RCRA) in part because strict RCRA regulation sends business its way.

But even these examples hardly color environmental law solely in the colors of rational choice economics. The eastern states, for example, may genuinely support environmental protection for public-health or ideological reasons, even if they recognize that there are selfish economic-development advantages to be had as well. The international agreement reached in 1987 about upper-level stratospheric ozone depletion largely reflected a combination of (1) the scientific consensus that developed by the mid-1980s about unregulated ozone loss and (2) the value-laden public conclusion that such losses were unacceptable—and the fact that Du Pont may have realized there were potential profits to be had by “getting with the program” hardly means that the program itself was only a profit-driven figment of Du Pont’s imagination.

In an earlier article, Chris chronicled the roles played by “moral outrage” and “cool analysis” in the development of environmental law. Although Chris’ point in that article was to contrast these two ideological traditions of environmentalism, it is equally as important to recognize how much in common these two traditions share. Both of these traditions are public-regarding in their nature. They both reflect strongly felt political positions, whether supported by an intuitive sense of right and wrong or a painfully documented record of scientific conclusions and economic analysis. The real contrast is between these public-regarding traditions and the far-less-legitimate phenomenon of selfish special-interest politics. Although supporters of rational choice economic models like to think that they have cor-

nered the market on analysis of political power, in fact the durability of environmental law may reflect that even a system of government so heavily influenced by special-interest politics must give way occasionally, and perhaps regularly, to the momentum of public-regarding ideas. By speaking truth to power, much of environmental law owes its attractiveness to the power of ideas—whether morally or economically based—whose time has come.