"You Just Don't Understand!"—The Right and Left in Conversation

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Professor, University of Maryland School of Law. I am, of course, indebted to Deborah Tannen for the title of this Dialogue, and commend her book "You Just Don't Understand": Men and Women in Conversation (1990) to all readers. Although all specific mistakes in judgment and fact are my responsibility, I appreciate the help I received from my fellow scholars at the Center for Progressive Regulation in thinking through the ideas that are expressed in this Dialogue, especially Thomas McGarity and Clifford Rechtschaffen.

Environmental issues, like much of the nation's domestic agenda, are in equilibrium, a condition unlikely to change until the next presidential election. By "equilibrium," I mean that while the views of stakeholders are polarized, and much time is spent engaging in damaging guerrilla attacks on the other side, little has changed in the big picture. The first generation statutory framework remains on the books, implementation remains erratic in the states, and experiments with such "second generation" approaches as emissions trading have a mixed track record. Neither the right nor the left ends of the political spectrum has accomplished its stated goal of fundamental, structural reform, and the infamous "pendulum" that William Ruckelshaus described so vividly swings back and forth with a steady rhythm but narrow trajectory.

To be sure, the Bush Administration has a decidedly right-wing tilt, especially within the White House and among the House and Senate leadership. Yet Christine Todd Whitman and her senior managers at the U.S. Environmental Protection Agency (EPA) are all moderates and unlikely to launch extreme policies with lasting effects at the administrative level. The Governor, as she prefers to be called, has as little in common with the House Republican leadership as her predecessor did, and is unlikely to set EPA on fire in either the positive or the negative sense. This posture means that incremental progress on worsening problems may be possible, although it is also likely that the White House will demand reversal of some of the affirmative changes made in previous Administrations.

With Whitman struggling to hold her own, and the White House intervening episodically at the behest of regulated industries it deems especially important, the most potent and consistent source of significant changes in environmental policy by the executive branch resides at the Office of Management and Budget (OMB), where John Graham heads the Office of Information and Regulatory Affairs (OIRA) and has proven more aggressive than any of his predecessors in developing an ambitious agenda of "cross-cutting" reforms that apply across the government. He has already launched some remarkable campaigns to curb incipient rulemaking at health and safety agencies, yet even these profound changes are unlikely to be codified.

Despite all this apparent movement in several, at times conflicting directions, the U.S. Congress remains stalemated, unable to produce a coherent proposal of any significance that would change the framework of laws crafted in an era when the left dominated policymaking. The existence of this framework sharply constricts the agenda of antiregulatory reformers. Since President George W. Bush appears either unwilling or unable to commit political capital to passing reauthorizations of such laws as the Clean Air Act (CAA) and the Clean Water Act, any legislative action is likely to be confined to lightning strikes on appropriations bills or periodic, high-profile oversight hearings on the daily activities of EPA, the U.S. Department of the Interior, and the OMB.

Of course, given the narrow divisions of power in the House and Senate, those oversight hearings may challenge the Agency from either the right or the left and must compete for media attention with homeland security, Enron and its related scandals, and political jockeying in anticipation of the 2002 election. The aftermath of the terrorist attacks of September 11, 2001, may or may not change the course of domestic policy from an historical perspective. For the foreseeable future, however, those events have ensured...
that inertia on polarized issues like the environment will persist until those narrow divisions are resolved one way or another.

In sum, in the big picture, the Administration’s bias has very serious consequences for specific, highly significant policy determinations, with America’s abandonment of the Kyoto Treaty a prime example of lasting and extremely unfortunate change. Yet there is always the awkward question: “Compared to what?” The Clinton Administration did not make big breakthroughs on the environment either, in part because it was stymied by the courts and in part because its political capital was consumed on other problems.

In the context of this condition of equilibrium at the national level, I read Gail Charnley and Donald Elliott’s recent ELR article, Risk Versus Precaution: Environmental Law and Public Health Protection, with a mixture of consternation and bemusement. I found their prescription for what ails the system—adoption of “interim” requirements that change readily in response to new scientific and technical discoveries—intriguing and worthy of further discussion. But I strongly disagreed with virtually every line of reasoning advanced to support this solution, from their diagnosis of EPA’s ailments to their characterizations of how environmental policy is affected by the broader tenets of the American “legal tradition.” Not for the first time, I had the strange feeling that the three of us live in different worlds, breathing different air, and seeing very different things when we look at the same objects.

On the theory that we might as well not squander this period of equilibrium rotating complacently in our own separate orbits, I undertook to write this response to Charnley and Elliott. Despite our agreement that the overall goal of a more “flexible” regulatory process is a promising and important reform, our opposing ideas about why we should pursue this goal may mean that we are unable to ever get there from here.

Deborah Tannen’s books, one of which inspired the title of this piece, dissect the language used by women and men in conversation, exploring how what we say and what another person hears often diverge without the participants realizing it. Clearly, these phenomena also permeate the exchanges between the right and the left regarding environmental policy. As just one small, Tannenesque example, when I say we need a more “flexible” system, I most certainly do not mean that compliance should be voluntary or that requirements should be loosely defined, although that is often the primary connotation given the term by conservative commentators. Rather, I mean that regulations and statutes must become “de-ossified,” allowing EPA and the states to implement regulatory programs that respond to evolving problems without spending years paralyzed by analysis. No one likes ossification and everyone would agree that industry deserves breathing room to invent better, cheaper ways to improve environmental quality. However, by emphasizing one value over the others, we end up exacerbating polarization, ushering ourselves right back into equilibrium.

And so, with the noble goal of providing more light than heat for a dialogue that is genuine far too rarely, I will attempt to jump start a conversation between the left and the right, considering three related questions: (1) what factors delivered us unto equilibrium; (2) what can we hope to achieve on the basis of existing knowledge; and (3) what is the best pathway to a better system?

The Past as Prologue

Charnley and Elliott offer three characterizations of the last 30 or so years of environmental policy. First, they argue that "regulation in the United States has been characterized by short-term decisions with unknown or unanticipated long-term public health consequences" because we have made "huge investments" in "regulation of chemical contaminants despite our limited ability to demonstrate the impact of that investment on improving public health." In that sense, they say, we have implemented "the precautionary principle on a grand scale."

On the other hand, they argue that "quantitative risk assessment has emerged as the dominant paradigm in the United States for including science in regulatory decision-making." They add that the use of risk assessment is complicated by the judiciary's insistence that the methodology is "an issue of fact," as typified by the U.S. Supreme Court's Industrial Union Department, AFL-CIO v. American Petroleum Institute (Benzene) decision. The decision reflects the "traditional suspicion of government regulations" that is embodied in "U.S. law," with the result that the courts demand "extensive factual records proving 'significant risks' to justify regulation aimed at protecting public health from environmental contaminants." Thus, in accordance with this "principal [sic] of legality," EPA assembles massive administrative records, with only about 10% of the data "necessary to reach a decision" and the remaining 90 "required to build a record for court review."

Finally, Charnley and Elliott contend, the precautionary principle, especially as asserted by the European Union (EU), is offered as an antidote to the ossification of the American regulatory system, running the risk that we will leap from the frying pan into the fire. "When Europeans today call for decisions based on 'the precautionary principle' . . . they are challenging the core premise of the American legal culture that requires an extensive factual record to justify government regulatory action." In fact, the "precautionary
Obviously, there are some striking inconsistencies here. If we have regulated wantonly, without being able to demonstrate significant public health benefits, then how can we characterize the existing system as ossified by the courts' requirement that agencies produce extensive factual records? The logical result of ossification is either that we have not regulated enough or that, when we have regulated, we have built an overly extensive factual record.

Further, if we are implementing the precautionary principle on a "grand scale," how can our dominant paradigm be "quantitative risk assessment"? And how does our embrace of the overly zealous precautionary principle square with the ostensibly rigorous requirements of our legal system's "traditional suspicion" of government action? Just who are the "interest groups" that urge us to abandon the promising tool of risk assessment in favor of the unjustifiable excesses of the precautionary principle, and what victories have these forces won lately?

These issues are complicated, and the Charnley and Elliott piece is a short dialogue, not a lengthy analysis. Nevertheless, I think it is fair to hold them to the basic framework of their various diagnoses of the existing system's problems, in order to offer my version of the left's alternative investigation and conclusions.

The benzene decision was indeed a set-back for proactive health and safety regulation, but it was handed down in 1980, preceding and informing the way Congress wrote and rewrote many of the nation's most important environmental laws. Far from accomplishing an abandonment of the precautionary principle, the benzene decision deepened a struggle within the three branches of government that continues to this day, pitting those who demand that government meet the heavy burden of proof described by Elliott and Charnley against those who believe it is better to act than not to act when irreversible and poorly understood health and environmental effects are at stake.

For reasons that probably have more to do with the broad appeal of environmental protection to the middle and upper classes of American society, as well as the repugnant tendency of American political institutions to overlook risks that afflict the working class, EPA was significantly less devastated by benzene's harshness than the occupational safety and health administration (OSHA). Benzene continues to have some chilling effect on EPA decisions at the margins. But there is no escaping the fact that EPA and its constituencies understand that the precautionary principle rejected by the Court in benzene is nevertheless deeply embedded in environmental law, as confirmed most recently by the Court's affirmation of standard-setting process without consideration of costs in whitman v. American trucking ass'n. Consequently, it is far more likely that EPA's difficulties are attributable to epic battles between powerful, well-heeled industrial interests and an ingenious environmental movement that has public opinion, writ large, on its side, as opposed to Charnley and Elliott's wishful thinking that the courts have instructed EPA not to act in the face of scientific uncertainty. The Agency tackles hard problems with large consequences, and often finds itself up at bat after Congress and the president have punted the ball.

As for the notion that the American judicial system embraces an overriding principle of legality, requiring government to meet a daunting burden of proof before it takes regulatory action, the situation on the ground, in the courts, is more nuanced. As EPA's recent encounters with the U.S. court of appeals for the District of Columbia Circuit regarding the control of ozone and particulates further demonstrates, the courts are susceptible to the same political forces and ideas that afflict the administrative and legislative processes, with the added dimension that the judges at this high level have finely attuned noses for cloudy, internally inconsistent reasoning.

At times, they are tempted to control agencies by remanding major initiatives, as the D.C. Circuit did with the ozone and particulate standards. This decision may have been the result of a rigorous demand for proof; it may have reflected the judges' political bias in favor of regulated industries; or it may have been motivated by their frustration with EPA's inability to explain itself well enough. In any event, this excursion into agency micro-management was reversed promptly by a unanimous court mindful of the institutional pitfalls for the judiciary in asserting control, regardless of motivation.

While it is certainly true that American culture includes a strong and vibrant strain of individualism that mitigates against government interference with business enterprises, it is also true that the American judicial system incorporates populist instincts that are very powerful. The extraordinarily compelling democratic ideal that disputes should be resolved by a jury of one's peers is carried out in America with unparalleled force, and this trust in the judgment of the common citizen cuts against the deferral of costly decisions to a cadre of elite experts. Ideas like Justice Stephen Breyer's proposal that we establish a "God Squad" of experts to resolve questions involving acceptable risk are likely to founder on the shoals of this ingrained populism. Indeed, even the right seems fickle regarding...
these proposals. Proponents of cost-benefit analysis justify their methodology on the basis of what the populace is supposedly "willing to pay" for enhanced protection, as opposed to any elitist's notion of what costs should be supportable.  

Lastly, Charnley and Elliott's attempt to side-line the crucial circumstance that the most important environmental laws embrace the precautionary principle is also refuted by the Court's decision in American Trucking, which was penned by no less authoritative a conservative than Justice Antonin Scalia. This situation is clearly repellant to the right, but again will not change unless equilibrium is disturbed at the highest levels of policymaking. To be sure, Charnley and Elliott are somewhat inconsistent on this point, arguing simultaneously that quantitative risk assessment is the dominant decisionmaking paradigm and that the misguided policies of the left have already caused a massive waste of money by "implementing the precautionary principle on a grand scale." Clearly, however, they fear precaution as intensely as they make versions of it into caricatures, an attitude that may well produce endless equilibrium unless it is modified.

Of course, anyone who has participated in the messy realities of the regulatory process knows that regardless of statutory mandates, a wide range of other considerations, most notably costs, have considerable influence as decisions are made. Precisely because the regulatory process is ossified, by the time EPA crawls across the finish line and promulgates a rule, it has considered every factor and fact known to the interests directly affected by the rule, from adverse health effects, to the efficacy and shortcomings of available pollution control technologies, to projected job and profit losses that may result from the action. Charnley and Elliott acknowledge these realities, but cannot resist railing against proponents of the precautionary principle as if it has the inevitable effect of trumping all other considerations.

The one characteristic of the American legal system that is acknowledged by all its participants is that judgments are made not by consensus, but in a process where intense clashes of powerful interests are either negotiated to resolution or turned over to higher authorities to make final decisions. Not only are we more litigious than most other developed countries, we believe that fighting with passion produces the best semblance of justice, if not truth. In the last few years, however, antiregulatory commentators like Charnley and Elliott have grown restless with the notion that these epic battles will deliver forward movement for their substantive agenda of eliminating overregulation in what they deem a reasonable time frame. They argue that we must embrace dramatic reform by suspending action until science verifies the existence and causes of a problem and regulatory costs and benefits are translated into monetary terms.

Why the left recoils at these characterizations brings us to the present, and an examination of what it will take to break equilibrium and find a better system.

The Present

The quest for precision mounted by Charnley, Elliott, and their allies emerges as an obsession with numbers, both in the form of quantified risk assessment and in the performance of monetized cost-benefit analysis. Indeed, from the perspective of their loyal opposition on the left, the most lasting and disturbing impact that the second Bush Administration is likely to have on health and safety regulatory policy is the illusion that the numbers reflect not values or suppositions, but the facts about any given regulatory dilemma. The result is that the antiregulatory agenda is cloaked in an atmosphere of objectivity it does not deserve. Rather than a messy but comprehensive assembly of information about all the common sense factors that should affect a final decision, antiregulators reduce decisions to deceptively objective and oversimplified sets of formulas.

Once again, the implications of this obsession with scientific "facts" and "objective" numbers is obscured by the right's equally fervent argument that we typically do not know enough to take regulatory action. Thus, at the same time that costs and benefits are calculated to the last dollar, and risks are expressed in the final thousandth, the proponents of such analyses also maintain that, in most instances, we should wait for definitive answers before implementing costly remedies. Charnley and Elliott further muddy these troubled waters by offering interim standards as a solution to uncertainty, appearing to embrace the notion that we should take some action while we are waiting for better science.

The illusion of precision created by quantitative risk assessment and cost-benefit analysis is especially unfortunate because these methodologies rely on such controversial concepts as the imperative of "discounting" the value of future lives. These concepts come into play far below the level of debate that garners public attention.
Charnley and Elliott's version of these very effective tactics is executed in three steps. First, they offer risk assessment as a more objective, sound, and balanced alternative to the precautionary principle, especially as the principle is articulated by the people they perceive as extremists who have seized control of the EU. Second, they characterize risk assessment as a "scientific" process that resolves issues with the same precision as cost-benefit analysis. Third, they exhort us not to take action until we have reached resolution of uncertainty through science.

Again, the left has a different view. As applied to the chemical contamination that is the focus of Charnley and Elliott's essay, the left views risk assessment as a methodology for considering available information about pollution and gauging the nature and scope of the threats it poses to public health and the environment. In contrast to the sequencing Charnley and Elliott propose—invoking precaution only on the rare occasions when we cannot get quantitative risk assessment quite right—the left views risk assessment as consistent with the precautionary principle. In operation, risk assessment most appropriately serves as a device [32 ELR 11113] for organizing the information that is then subject to the precautionary principle. Risk assessors should do their best, in the face of uncertainties at all stages of the process, to describe qualitatively the characteristics of the risk. Decision-makers should consider this information and determine whether to act in the face of the uncertainty.

All versions of risk assessment methodology for toxic chemicals consider the quantity and content of a release of the chemical, its fate and transport through the environment, the levels of exposure experienced by people and ecosystems, and the consequences that may result from such exposures. Three types of uncertainty plague every stage of such analyses: we lack data, we lack technology, and we lack science.

Data gaps suffuse the regulatory system; at their simplest level they mean that we lack adequate information about the quantity, chemical characteristics, and toxicology of even the most common pollutants. The situation has become so embarrassing that the chemical industry has launched an unprecedented testing program to fill some of these blank spaces, although it remains to be seen whether those results will garner widespread acceptance as scientifically sound.

Second, we either lack or have failed to implement technologies capable of monitoring the odyssey of common toxic chemicals through dynamic environments, over distances that can encompass hundreds, thousands, or—in the case of global warming—millions of miles. Not only do we have an inadequate system of monitoring, especially water quality monitoring, but we remain remarkably ignorant about how climate changes and other physical phenomena, e.g., building down-wash, affect transport of pollution and therefore its fate.

Third, we do not understand the synergistic and cumulative effects of such emissions, much less the biological mechanisms by which they cause cancer and other debilitating diseases. EPA's efforts to research cumulative risk have proceeded in fits and starts for many years and should be a much higher priority.

But the story does not end here. Far from acknowledging the uncertainty that makes risk assessment more of an art than a science, the mantra of the antiregulatory movement is that quantitative risk assessment quite right—the left views risk assessment as consistent with the precautionary principle. In operation, risk assessment most appropriately serves as a device [32 ELR 11113] for organizing the information that is then subject to the precautionary principle. Risk assessors should do their best, in the face of uncertainties at all stages of the process, to describe qualitatively the characteristics of the risk. Decision-makers should consider this information and determine whether to act in the face of the uncertainty.

How would the left accomplish such judgments? By eschewing the quixotic search for precision, accepting uncertainty, and doing our best to make a wise judgment in an admittedly chaotic process that weighs a variety of factors, guided by procedural safeguards designed to give everyone her "day in court."

Two final aspects of the present debate deserve mention before I close with a comparison of the right and left's prescriptions for the future. Charnley and Elliott of course are aware that risk assessment of toxic chemicals is not the only way to regulate pollution, even though they did not think to include such caveats in their most recent analysis of what ails the system. In the last 30 years, we have tried a broad variety of approaches that do not require either quantitative or qualitative risk assessment, including technology-based regulation and emissions trading. In general, the right despises technology-based approaches and embraces "market-based" systems, arguing that forcing industry to install government-prescribed technologies is needlessly costly and chills innovation. And, in general, the left holds the exact opposite point of view, arguing that technology-based approaches are responsible for our most notable success stories in the last 30 years.
Without delving into the details of this very interesting and important aspect of the debate, my real point is that equilibrium is likely to prevail until and unless the right, the left, and everyone in between considers such alternatives as fair game in a redesigned regulatory system. When and if Charnley and Elliott's interim standards come into play, they must embody the entire spectrum of regulatory approaches, and not just pseudo-scientific risk assessment.

Equally important, the debate over the appropriate definition of the precautionary principle and its role in environmental policy must be joined, rather than side-stepped. The right and left will never move toward the middle, much less negotiate transcending reform of the existing system so long as the right demands scientific certainty as the condition precedent for action.

The Future

As I announced at the outset, the real question is not whether interim standards are a good idea but how we get there from here. At the threshold, that question cannot be answered unless a critical mass of participants becomes convinced that it is in their interests to negotiate.

I often say that I would rather sit down and try to cut a deal with the most ferocious industry opponents of environmental regulation than carry on the seemingly endless theoretical debate over the proper role of risk assessment, the implications of the precautionary principle, or the merits and dangers of emissions trading. That sentiment, which I suspect is widely if privately shared by many participants in the power struggle playing out at the national level, reflects not just weariness with the circular nature of the discussion, but the conviction that in any particular context, people representing diametrically opposed interests who have adequate incentives and a meaningful deadline can produce remarkable breakthroughs.

Of course, to maintain my credibility here I must quickly acknowledge that I do not underestimate the barriers to that outcome. Three seem most daunting. First, the left and the right harbor a deep reluctance to wade into the dense thicket of issues addressed by the federal environmental laws, taking them up one at a time with different representatives at different tables. The image of negotiations to make progress on nonpoint pollution, involving farmers, owners of large industrial facilities, officials who run publicly owned treatment works, and environmental activists, is as exhausting and discouraging as the image of municipal, industrial, and environmental representatives convening to refashion the CAA's grandfathering rules. Congress' paralyzing anxiety about taking on large legislative reauthorization battles re-enforces the interest groups' approach avoidance, and guerrilla attacks occur on a much smaller scale.

Second, none of the relevant players perceive that there is a pressing need to negotiate because they have grown so accustomed to the state of equilibrium. Until and unless the left recognizes that the dysfunction of the existing system increasingly renders the laws on the books symbolic, and the right recognizes that it has no chance of dismantling the laws that still require the largest corporate actors to expend significant energy on compliance they regard as misguided, progress will elude us.

Third, the best way to cut the Gordian Knot preventing the left from accepting market-based mechanisms is to have a far richer bank of data available, both as to ambient environmental conditions and the toxicology of both individual chemicals and combinations of chemicals. Resources will also be necessary to enforce such approaches, another source of the left's reluctance to embrace them. But we must spend money to save money. Gathering this information will require a significant increase in government resources for environmental protection, and is far beyond reach for the federal and state agencies that already suffer drastic budget shortfalls.

One of the most significant problems plaguing the existing system is that people are deterred from agreeing on action because once a change is made, the regulatory policy is very hard to dislodge. Conceivably, then, starting small, with a narrowly defined problem and interim standards that are reevaluated on the basis of a predetermined and information-rich set of performance criteria might be just the ticket to break gridlock. Working to lower the stakes of such decisions by making them explicitly time-limited may well provide enough momentum to place meaningful reforms within reach.

At the moment, the political circumstances in the country do not give either the right or the left adequate motivation to blaze this trail out of equilibrium. The price each side is paying is great and growing, but neither is convinced that the negotiation necessary to craft even interim standards will not leave them worse off.

1. The acid rain program is generally perceived as a great success, but the other, most prominent example—trading within California's South Coast Air Quality Management District—was an unmitigated disaster from both a public health and an administrative

2. I use "right" and "left" in this Dialogue to connote diametrically opposed substantive ideologies regarding the status and future of environmental policy. I do not intend to adopt any of the historic connotations those terms have accumulated in other contexts.


4. For analyses of such initiatives as the resurrection of "return letters" and dramatically expanded cost-benefit analysis, see Hearings on Regulatory Accounting, U.S. House of Representatives, Subcomm. on Energy Policy, Natural Resources and Regulatory Affairs of the Comm. on Government Reform (Mar. 12, 2002) (statement of Prof. Lisa Heinzerling, Georgetown University Law Center) and Hearings on Public Health and Nature Resources: A Review of Implementation of Our Environmental Laws, U.S. Senate, Comm. on Governmental Affairs (Mar. 7, 2002) (statement of Prof. Thomas O. McGarity, University of Texas School of Law). See also Thomas O. McGarity, Jogging in Place: The Bush Administration's Freshman Year Environmental Record, 32 ELR 10709 (June 2002).

5. The debacle of the Senate's final passage of energy legislation proves this point beyond much doubt. The bill includes so many provisions that are inconsistent with sound public policy that some commentators have urged that it be smothered in conference. See, e.g., Adding Up the Energy Bills, WASH. POST, Apr. 29, 2002, at A20 ("As they look for agreement on other difficult issues, it doesn't take much imagination to picture negotiators sweetening the ultimate deal by embracing everyone's payoffs."). Gridlock of this nature has meant that the structure and key provisions of most of the major federal environmental laws has not changed since the decade leading up to and culminating in the 1990 Clean Air Act (CAA) Amendments, when the public's reaction to the Reagan Administration's environmental policies stoked a period of unprecedented legislative activism on the environment.

6. I refer here to EPA's efforts to strengthen national ambient air quality standards (NAAQS) for particulate matter and ozone.


8. Id. at 10364.

9. Prof. Thomas McGarity first described the laborious, seemingly endless set of procedures that slows administrative rulemaking. Thomas O. McGarity, Some Thoughts on "Deossifying" the Rulemaking Process, 41 DUKE L.J. 1385, 1429-36 (1992). Matters have only gotten worse in the decade since he published those observations.

10. Charnley & Elliott, supra note 7, at 10363.

11. Id.

12. Id. (emphasis added)


15. Id. at 10364.


17. Charnley & Elliott, supra note 7, at 10364.
18. Id.

19. Id. at 10365.

20. Id. at 10366 (emphasis added).


23. Id.

24. Juries are a cornerstone of American democracy, involving more people here than anywhere else in the world; in 2002, more than five million American citizens will be called to service on a jury. The American Jury, Celebrating 200 Years of Justice by the People, at http://www.supreme.state.az.us/jury/american.htm (last visited June 15, 2002).

25. STEPHEN BREYER, BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION 59-81 (1993) (calling for the creation of a "civil service elite"). Of course, willingness to pay can easily be corrupted by the ability of the rich to pay more money to avoid risk than the poor, eclipsing fairness and other moral values with one-dimensional consumer preferences. For an insightful exploration of these issues, see LISA HEINZERLING & FRANK ACKERMAN, PRICING THE PRICELESS: COST-BENEFIT ANALYSIS OF ENVIRONMENTAL PROTECTION 13-14 (Georgetown Envtl. L. & Pol'y Inst. 2002).

26. The Court upheld prior interpretations of the CAA's mandate that EPA protect public health with an "adequate margin of safety" and without regard to costs.

27. Charnley & Elliott, supra note 7, at 10363.

28. Id.


30. See, e.g., Charnley & Elliott, supra note 7, at 10365 (discussing the problem of scientific uncertainty).

31. Discounting sharply diminishes the value of future lives by treating them as an expendable investment, heavily tilting the field for regulatory decisions away from preserving the natural environment for the use and enjoyment of our children. For further discussion of discounting issues, see HEINZERLING & ACKERMAN, supra note 25, at 21-22.

32. See EU STATEMENT ON THE PRECAUTIONARY PRINCIPLE, supra note 16.

33. For a description of the risk assessment process and the implications of these uncertainties, see JOSEPH V. RODRICKS, CALCULATED RISKS, THE TOXICITY AND HUMAN HEALTH RISKS OF CHEMICALS IN OUR ENVIRONMENT (1992).

34. In a recent report covering 2,863 organic chemicals produced or imported in amount above one million pounds annually, EPA concludes that there is no toxicity information available for 43% of such chemicals and that a full set of basic toxicity information is available for only 7%. EPA Analysis of Test Data Availability for HPV Chemicals, 22 Chem. Reg. Rep. (BNA) 261 (1998).


37. The two have written espousing the virtues of emission trading systems. E. Donald Elliott & Gail Charnley, Toward Bigger Bubbles: From Environmental Protection Agency to Environmental Accounting Agency: Why Inter-Pollutant and Inter-Risk Trading Are a Good Idea and How We Get There From Here, 13 F. FOR APPLIED RES. & PUB. POL’Y 48 (1998).


40. See, e.g., Rena I. Steinzor, The Reauthorization of Superfund: Can the Deal of the Century Be Saved?, 25 ELR 10016 (Jan. 1995) (describing a successful negotiation of a comprehensive Superfund reauthorization bill by a commission comprised of the chief executive officers of prominent industry, public interest, and government groups. Of course, the deal foundered on the election of the 104th Congress, which had anything but compromise on its mind).