

Separatism and Skepticism

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Whenever I hear someone say that it is time to undertake a fundamental restructuring of our institutions, I shudder. It isn't that I doubt the usefulness of ever changing things around; on the contrary, I think that is frequently a very good idea. It's just that the suggestion is made so often, and it can't possibly be implemented as often as it is made. Consequently, calls for large-scale institutional change must be approached with a healthy skepticism.

In recent years, a regular subject of calls for change has been the set of processes we use in making scientific decisions, or more properly, our processes for deciding issues of public policy that include a scientific dimension. In his provocative and insightful contribution to this Symposium, Joel Yellin has joined this particular chorus calling for reform.¹ Most of his ideas are well-reasoned and constructive, and I freely endorse them. But one part of his analysis—concerning the phenomenon sometimes known as Scientific Separatism—calls for brief comment. Professor Yellin is a Non-Separatist, which is to say that he does not believe that it is possible to break these complex policy decisions into separate scientific and political components. The Separatists, who consider that course both possible and wise, also believe that our institutions of government make scientific decisions badly and that, as a consequence, restructuring is necessary.²

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1. See Yellin, *Science, Technology, and Administrative Government: Institutional Designs for Environmental Decisionmaking*, 92 YALE L.J. 1300 (1983) [hereinafter cited as Yellin, *Administrative Government*]. This is not Professor Yellin's first foray into this battle. See Yellin, *High Technology and the Courts: Nuclear Power and the Need for Institutional Reform*, 94 HARV. L. REV. 489 (1981) [hereinafter cited as Yellin, *High Technology*]. The earlier article focused on ways of modifying procedures for judicial review of agency action. The contribution to this Symposium deals mostly with ways of modifying the agencies themselves.

2. Although Separatism perhaps has ancient roots, its current incarnation may be traced to the work of Dr. Arthur Kantrowitz, who originated the idea of a "science court." See Kantrowitz, *Proposal for an Institution for Scientific Judgment*, 156 SCIENCE 763 (1967); Kantrowitz, *Controlling Technology Democratically*, 63 AM. SCIENTIST 505 (1975); Kantrowitz, *The Science Court Experiment: Criticism and Responses*, BULL. ATOM. SCIENTISTS, Apr. 1977, at 44. The Science Court proposal is the aspect of Separatism that has generated the most scholarly comment. See, e.g., Casper, *Technology Policy and Democracy*, 194 SCIENCE 29 (1976); Commoner, *A "Supreme Court" for Science?*, HOSP. PRACTICE, Apr. 1976, at 125; Martin, *The Proposed "Science Court"*, 75 MICH. L. REV. 1058 (1977); Nelkin, *Thoughts on the Proposed Science Court*, 18 HARV. NEWSLETTER ON SCI., TECH. & HUM. VALUES, Jan. 1977, at 20. For an interesting earlier treatment of some of the same themes, see C.P. SNOW, *SCIENCE AND GOVERNMENT* (1961).

In general, I agree with Professor Yellin that the Separatists have it all wrong. Their conception of the nature of the world is flawed: Separatism is an unrealistic goal. As will become clear in a moment, however, I disagree with Professor Yellin about the implications if the world is indeed as the Separatists imagine it to be. In particular, I do not think that the Separatists and Non-Separatists are as far apart as they sometimes appear to be, at least not on the issues that matter most. The crux of their agreement is captured in a brief passage toward the beginning of Professor Yellin's paper:

These [Separatist] arguments have undeniable force. If the technical can be distinguished in practice from the legal and ethical, the principles of democratic government demand that Separation be enforced in order that properly chosen officials make the legal, political, and ethical decisions that we have placed in their care.³

In other words, problems with scientific and technological components are qualitatively different from other problems with which society must cope. Ordinary processes of decisionmaking—including, I would assume, the usual political processes with all of their baggage—are not appropriate: If Separation is possible, then democracy requires that we accomplish it. That is why it is important, on this view, to restructure our institutions. If I am correct in reading Professor Yellin's paper as suggesting that this is a point on which Separatists and non-Separatists agree, then I think that the entire debate on Separatism may be overlooking a point or two.

To understand what is being overlooked, I will suggest, not without another shudder, that we turn to first principles. The American democracy is often described as based largely on skepticism, on the notion that rarely is one idea so much better than another that the first should be imposed by the government, no matter how great the opposition to it. The political process is designed in large measure to facilitate the choice among competing ideas. High value is placed on the integrity of the process itself; with rare exception, low value is placed on the purported superiority of one idea to another.⁴

But those rare exceptions are important, and because they exist, the previous paragraph obviously cannot be a complete description of the American system of government. It is a first approximation. To make the description more accurate, it is of course necessary to add the Constitution, which establishes a set of fundamental rights that the majoritarian

3. Yellin, *Administrative Government*, *supra* note 1, at 1309.

4. For an enlightening recent exposition of this model, see C. LINDBLOM, *POLITICS AND MARKETS* 247-60 (1977). John Ely has attempted to explain the Constitution this way too. See J. ELY, *DEMOCRACY AND DISTRUST* (1980).

process may not violate. That is why the system of government is sometimes called "mixed"—it involves both skepticism about ideas and an understanding that some ideas really are inviolable.

For most of the last hundred or so years, and certainly in the heydays of the New Deal and of judicial activism, the nation has gradually become less skeptical. Perhaps some ideas really are better (or worse) than others. And perhaps on a handful of important issues, the choice between good ideas and bad ones should not be left to the vicissitudes of the majoritarian process. So we have decided that slavery and racial discrimination are bad, no matter how many people may think that they are good,⁵ and although the buyer must still be wary, we generally consider it a good thing when the government lends a hand by prohibiting the sale of contaminated food or badly built automobiles or unproven cures for the common cold.⁶ In short, the courts and the administrative agencies now play a vital role by acting in those areas where we have grown less skeptical of governmental imposition of "correct" ideas.

Now that, too, is only an approximation. Perhaps it is more accurate to say that we permit politically appointed administrators and life-tenured judges to act in areas where *they* have grown less skeptical of the wisdom of *their own* ideas. Not only that, but in general, the public stands idly by as they do it. The experts, whether their expertise involves assessing risk or declaring fundamental rights, are permitted a certain latitude for decision. In particular, they are allowed to operate largely outside the political arena, the world in which all ideas are subject to skepticism.

But largely is not the same as completely, and even the administrators and judges are ultimately subject to a variety of political constraints. Some are constitutional, some are statutory, some are merely practical. The only one that need concern us here is the weight of public opinion. If there is massive negative reaction to something done by a court or an administrative agency, very often (although certainly not always) the court or agency will retreat from what it has done. So there is a sense in which idea-skepticism continues, even after the experts have had their say: If enough pressure is brought to bear, the experts may well change their minds.⁷ In

5. These judgments are enshrined in the Constitution. See U.S. CONST. amends. XIII, XIV & XV. Dean Ely is of the view that the perceived superiority of these ideas is based on their efficacy in improving the political process. See J. ELY, *supra* note 4, at 135-79.

6. There are, of course, dissenting views. See R. POSNER, *ECONOMIC ANALYSIS OF LAW* 271-81 (2d ed. 1977).

7. The influence of political pressure on administrative agencies needs no documentation. In recent years, scholarship on the limits of judicial power has concentrated heavily on congressional power to limit the jurisdiction of the federal courts. See, e.g., M. PERRY, *THE CONSTITUTION, THE COURTS, AND HUMAN RIGHTS* 127-38 (1982); Sager, *The Supreme Court, 1980 Term—Foreword: Constitutional Limitations on Congress' Authority to Regulate the Jurisdiction of the Federal Courts*, 95 HARV. L. REV. 17 (1981). But that power, if it exists at all, is a formal, structural check on what the

sum, no matter how complex our model of American government, political pressure always plays a role.

Enter science, stage right. As described by many of its most eminent practitioners and most ardent admirers, science stands beyond politics. Science is merely a process, an approach to solving problems, a way of gaining knowledge.⁸ In particular, science seeks to find the *best* among available answers to questions, to demonstrate that one hypothesis is so consistent with observation and experiment that we are justified in calling it “the truth.” And because science seeks the best or truest among competing ideas, it stands in powerful and striking contrast to the American political tradition, which is premised on the theory that all ideas should be approached skeptically.⁹

The Separatists would institutionalize truth-seeking mechanisms, and that is why, when I read their advice, I shudder.¹⁰ It is not that I doubt the presumptions of science, it is rather that I doubt the democracy of the Separatist idea. It is curious that the Separatists consistently assert—and that many non-Separatists, including Professor Yellin, frequently concede—that if separation is possible, then *not* to separate technological components of decisions would be undemocratic.¹¹ The reverse seems more likely. Separatist proposals such as the “science court”¹² would create institutions that could not function unless they had what amounted to

courts do. More important for the point made in this essay is the role of public and political pressure on judicial decisionmaking. Although that role is controversial, the force of these checks can hardly be disputed. See, e.g., A. BICKEL, *THE MORALITY OF CONSENT* 91-123 (1975); Carter, *The Political Aspects of Judicial Power: Some Notes on the Presidential Immunity Decision*, 131 U. PA. L. REV. 1341 (1983); G. ROSENBERG, *Congressional Control of the Federal Judiciary Through Court-Curbing* (May 1983) (unpublished essay on file with *Yale Law Journal*).

8. See, e.g., J. ZIMAN, *RELIABLE KNOWLEDGE: AN EXPLORATION OF THE GROUNDS FOR BELIEF IN SCIENCE* (1978); J. ZIMAN, *THE FORCE OF KNOWLEDGE: THE SCIENTIFIC DIMENSION OF SOCIETY* (1976). As a consequence, so the argument runs, it is wrong—or at least, imprecise—to blame scientists for the uses to which their work is put. See, e.g., S. FLORMAN, *BLAMING TECHNOLOGY: THE IRRATIONAL SEARCH FOR SCAPEGOATS* (1981); M. WESSEL, *SCIENCE AND CONSCIENCE* (1980).

9. This is not to suggest that American political theory rejects the notion that some ideas, in the long run, will prove better than others. But the theory holds that the better ideas will be selected through an evolutionary democratic process, rather than imposed from above. A more accurate statement than the one in text might be that the American political tradition is premised on the theory that all *attempts to impose particular ideas as best* should be approached skeptically. Skepticism, of course, does not bar ultimate acceptance. As Alexander Bickel suggested of American political theory, “the highest morality is *almost* always the morality of process.” A. BICKEL, *supra* note 7, at 123 (emphasis added).

10. I do not shudder alone, although some have gone to unnecessary rhetorical lengths in proclaiming their distaste for Separatist solutions. See, e.g., Commoner, *supra* note 2, at 129 (Science Court “would reduce science from a process in which knowledge is freely shared . . . to one in which people are told what someone decided they should be told” and assumes “the people of the United States are not bright enough to learn for themselves what they need to know about the modern world”); Callen, *The Science Court*, 193 *SCIENCE* 950 (1976) (“Not since . . . the trial of Galileo have we had a canon court issuing pronouncements of scientific Truth.”).

11. See, e.g., Yellin, *Administrative Government*, *supra* note 1, at 1309.

12. See *supra* note 2.

the final word on all matters within their jurisdiction. We have had many examples over time of nations whose governmental institutions purport to have the final word on truth. I for one have always been thankful not to live in one of these nations.

Separatism, at its heart, betrays a mistrust of democratic processes. It embodies concepts of government-by-the-best-qualified, concepts that seem to me to be anathema to American political traditions. Nor will it do to assert that our administrative agencies and courts perform a very similar role. It is true that administrators and judges bring special expertise to problems that are complicated. But as mentioned above, at least some political controls remain on what these experts do, and in many cases, they will cave in to political pressures and change their decisions. So one administration will be certain that worker health is most adequately assured at a particular air lead level, while the next will be convinced that the costs of the regulation far outweigh its benefits.¹³ Similarly, we have a Supreme Court that is capable of holding simultaneously that a pregnant person has a fundamental right to decide whether to terminate a pregnancy and also that the right is not so fundamental that the state cannot discourage its exercise.¹⁴

Some say that this susceptibility to political pressure is a terrible thing. I would agree that it sometimes produces decisions that seem inconsistent or even wrong. But on the other hand, I would not want to be governed by experts who considered themselves beyond the reach of any public pressure. I am less sure than some that experts, whether administrators or judges, are always right, and I think that a willingness to reconsider previous judgments is often a very good thing.¹⁵ But a panel of scientists devoted to discovering and announcing the best available version of scientific "truth" could hardly go back later and change its mind, unless the new version of "truth" was based on fresh scientific evidence. A public clamor would not be enough. Any sensitivity to political pressure would defeat the purpose of the enterprise. The whole idea is to isolate a portion of the decisionmaking process from the ebb and flow of public opinion and

13. Of course, the web, while not seamless, is well-formed, and when one institution changes its mind, another may step in to force an adherence to the original policy. See, e.g., *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 103 S. Ct. 2856 (1983) (rejecting Reagan Administration's attempt to rescind passive restraint rule); *American Textile Mfrs. Inst. v. Donovan*, 452 U.S. 490 (1981) (rejecting Reagan Administration's request to remand case following change in executive branch policy).

14. Compare *Roe v. Wade*, 410 U.S. 113 (1973) (right to abortion in certain circumstances is fundamental) with *Maher v. Roe*, 432 U.S. 464 (1977) (state may discourage its exercise).

15. At other times, it may seem to be a very bad thing, but that is a normative judgment based on the observer's agreement or disagreement with the result reached. By all means, let administrators and judges remain generally beyond the sting of public disapprobation, but do not permit them to lose all touch with reality. Cf. A. BICKEL, *supra* note 7, at 111 (courts must interact with other institutions).

protest. That is an idea on whose merits I remain skeptical.

Non-Separatists are also skeptical, but for a different reason. It is not that separation is not desirable, but rather that separation is not possible. In the absence of the possibility of separating technological and policy components of a decision, it is important—so Non-Separatists hold—to find other ways of improving the process through which we take the scientific consensus into account in reaching our decisions.

That goal at first blush seems laudable, and a growing literature suggests the ways that we can do it without pretending that the world is really separable.¹⁶ We might improve scientific education (to avoid the charge of elitism) and encourage those with scientific training to enter law and public policy (to avoid the danger of ignorance). And we might use any of a variety of new institutional structures, from special scientific advisory panels (short of science courts, of course) to scientific aides for bureaucrats to science clerks for judges.¹⁷ Each of these proposals carries the illusion of combining “neutral” scientific information with “value-laden” policy judgments, without seeming to favor either. But what would be the result of all these changes? Just this: more scientists and fewer humanists in the decisionmaking process.¹⁸ The Separatists, who seek explicit recognition that what scientists do is so complex that only scientists themselves are qualified to review the technical evidence on which policy is often based, would have lost the battle. But they would have won the war, because the systemic changes would be an implicit acknowledgement of the

16. See, e.g., B. ACKERMAN, S. ROSE-ACKERMAN, J. SAWYER & D. HENDERSON, *THE UNCERTAIN SEARCH FOR ENVIRONMENTAL QUALITY* 147-61, 208-20 (1974); L. TRIBE, *CHANNELING TECHNOLOGY THROUGH LAW* 592-633 (1973); Tribe, *Ways Not to Think About Plastic Trees: New Foundations for Environmental Law*, 83 *YALE L.J.* 1315, 1326-46 (1974); Yellin, *High Technology*, *supra* note 1, at 555-60.

17. In his *Harvard Law Review* article, Professor Yellin proposed a panel of scientific masters, nominated by the President and confirmed by the Senate, to serve the courts on scientific questions, much the way that special masters currently serve the courts on issues of all sorts. See Yellin, *High Technology*, *supra* note 1, at 555-60.

18. This reference should not be understood to suggest that scientists can never be humanists. To follow the textual point, it might be useful to imagine that policymakers come in four varieties: Technologists (who are trained in a scientific discipline and take the teachings of that discipline as defining their worldview); Humanists (who lack specialized scientific training and tend to view the world in terms of “good” or “bad” and “right” or “wrong”); Mixed Policymakers (who have characteristics both of Technologists and of Humanists); and The Different (who have characteristics neither of Technologists nor of Humanists). The Separatist proposals usually call for expanding the role played by Technologists; the Yellin proposals seek to increase the number of Mixed Policymakers. Both scenarios would tend to freeze out “mere” Humanists and, of course, The Different. A Mixed Policymaker might bring to policymaking a degree of humanism (defined in accordance with the definition of Humanist), but it would not be the same degree that a true Humanist would bring. Similarly, a Mixed Policymaker would not bring to policymaking the same world view that a mere Technologist would bring. If we undertake no special reforms, then decisionmaking positions in our political institutions will probably continue to be filled in disproportion to their numbers by Humanists and perhaps The Different, with a sprinkling of Mixed Policymakers and Technologists. It is this distribution that would be altered should any of the reform proposals be implemented.

same thing.

Is this, then, like the First Law of Thermodynamics, which is often described to first-year physics students as a universal enunciation of the principle, "You can't win."¹⁹ Will every solution turn back upon itself and permit scientists to take over scientific decisionmaking? The answer is a qualified yes. You really cannot beat the Separatists, at least not as long as you play the game by their rules. But perhaps the rules can be changed.²⁰

The question that fires the Separatism debate is this one: "*How* should we structure our institutions to take account of the complexity of scientific decisions without sacrificing . . ."—and here you can fill in a list of whatever political traditions seem to you the most important. Maybe the question is wrong. There are prior questions: *Why* should we structure our institutions to take account of the complexity of scientific decisions? Why can't we just muddle along as before? This, at last, is the second of the two points that the debate is overlooking.

The quick answer is that our existing institutions have not been doing a good job, which is an acceptable answer only if goodness is a function of the degree to which the decisionmakers evince an understanding of scientific concepts. But what if we return to the political traditions mentioned a few paragraphs back, and decide to remain skeptical of scientific expertise? We are not required to accept the claims of scientists that they are "right" or that they have found a "consensus" on "truth," merely because the claims are made. Even if the experts are right, we do not have to take account of their rightness. As long as idea-skepticism holds, policy need not be rational.

So the question comes to this: Why must science policy be rational? The most obvious reply is that science is important. But economics and diplomacy and military strategy are also important. Sometimes they are more important. And yet we permit political pressure to dictate decisions on economic policy, on foreign relations, and on the use of the armed forces. We do not leave any of those areas entirely to the experts. Economists, diplomats, and generals are no doubt convinced that what they do is far too complex for ordinary citizens to understand, and they are probably

19. One way of expressing the First Law of Thermodynamics is: $\Delta U = \Delta Q - \Delta W$, where U = total energy of the system, Q = heat energy applied to the system, and W = work performed. The First Law may be stated roughly as follows: The change in internal energy of any system is equal to the heat energy applied to the system less the external work performed by the system. There is no way to come out ahead, and thus, "You can't win." (It should be noted that the Second Law may be expressed as "You can't even break even" and the Third as "You can't get out of the game.")

20. As a student in my course on Legal Control of Science and Technology recently suggested, when you don't like the answer you can always change the question. Cf. N. KROGIUS, *PSYCHOLOGY IN CHESS* 175-210 (K. Young & B. Cafferty trans. 1976) (play your own game, not the one your opponent wants you to play).

right. But that does not by itself lead to a mass demand that we restructure our institutions in order to bring their expertise to bear more effectively.²¹ Certainly the President has intelligent and well-trained economic advisors, but in the crunch, he is likely to listen to his political advisors instead. While diplomats may make recommendations on the basis of their years of experience, foreign affairs is a game often played for the public opinion polls. And we all know that war is far too important a matter to be left to the generals.

My point is not that science is no different from any of these areas in which we have learned to live with policies that defy rational analysis. Of course science is different. The question is whether those differences matter. Perhaps they do—but both sides in the debate over Separatism must address the issue, to explain why it makes any difference whether science policy is rational or not.²² Until that question is answered, lay people will remain what they have always been—skeptical of claims of expertise. And unless that public skepticism is overcome, no proposals to restructure our institutions by granting scientific experts a special status will ever get off the ground.

21. This is not to deny that New Deal agencies represent lengthy strides toward expert regulation of the economy, but that is all they are—lengthy strides. The New Deal scheme still leaves considerable space for political pressures to alter expert decisions. In particular, the experts always can be (and frequently are) overruled by statute. The Supreme Court's recent decision in *INS v. Chadha*, 103 S. Ct. 2764 (1983), striking down the legislative veto as unconstitutional, might make political accountability more difficult, but that hardly seems likely. The legislative veto was not the predominant method for legislative control of administrative action. That method has been, and remains, the threat of affirmative legislation, including legislation altering the agency's jurisdiction, slashing its budget, or dissolving it altogether. *But see* Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1669 (1975) (arguing that legislative controls are not adequate).

22. For an example of an argument of the sort that Separatists ought to be making, see Bazelon, *Coping with Technology Through the Legal Process*, 62 CORNELL L. REV. 817, 822 (1977) (contending that scientific questions are far more difficult than other complex issues faced by government).