Science and Conscience

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BOOK REVIEWS


*Science and Conscience* analyzes how American society can best approach the resolution of what the author, Milton Wessel, characterizes as the “modern socioscientific dispute.” Socioscientific disputes are marked by: (1) strong, widespread public attention and interest; (2) complex, highly technical issues; and (3) “quality of life questions.” Examples of these modern disputes include nuclear power, toxic compounds, economic-power concerns, and energy conservation.

The socioscientific dispute is unique to our age; its existence is attributable, in part, to a heightened public awareness of both the benefits and the hazards of technology. Because of growing specialization, science is increasingly inaccessible to the public; yet, ironically, the layman has an important stake in how these conflicts are resolved. As a result, the public feels frustrated and helpless.

The author acknowledges that no easy solutions are available to resolve these difficult, emotionally-charged social problems. Accordingly, he devotes the bulk of his work to defining and analyzing the problems. In so doing, he attempts to set the stage for new and creative solutions outside the traditional, and according to Wessel, unworkable methods of conflict resolution.

The book’s major criticism is of the adversarial system, which Wessel considers particularly ill-suited for resolving socioscientific disputes. Wessel argues that the adversarial tactics of obfuscation and delay are particularly unfair, and even dangerous in cases that involve the public interest. They undermine public confidence in the judicial system as well as in the corporate defendants’ good faith. In the process, he repeats many of the familiar objections to the “sporting” theory of justice, quoting from Dickens’s *Bleak House* and from Pound’s celebrated address of 1906 to the American Bar Association.

Although the adversarial system can and often is abused, the au-

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3 *Id.* at 4-5.
4 *Id.* at 18. Wessel introduces the concept of a “risk/benefit” analysis, which calls for a comparison of the benefits of a proposed course of action with its “disbenefits” (all costs and all risks).
5 *Id.* at 39-40.
The author's criticism seems unduly harsh. The real difficulty is that most socioscientific disputes, except of course for tort claims, do not belong in the courts. Their presence reflects in part expanded notions of constitutional law. Primarily, however, they are in the courts because of the failure of the legislature or of the executive to act.

Wessel does, however, critically address the role that corporations now play in dispute resolution. Typically, corporations involved in socioscientific disputes refer the matter to counsel and then ignore it entirely. Counsel then assumes that its job is to win this particular case, without regard to other consequences. Accustomed to the adversarial method, it resorts to every trick in the book. Even when the corporation attempts to supervise counsel, the situation is no better. The usual practice involves giving this responsibility to middle management, who are eager to show a short-term profit. This again translates into an attempt to "win," instead of tackling long-range problems.

Wessel contends that only by making top-level management responsible for counsel's behavior and dispute resolution can corporations remedy this situation. Counsel should be appointed by a legal committee of the board and attend meetings of the board of directors. Counsel must be made to see that its long-range interests are the same as the corporation's, despite the apparent loss of its much-vaunted "independence." Then the board, or its legal committee, can see and weigh each dispute as part of a much larger picture. According to Wessel, corporations will then be able to exercise and fulfill their responsibilities, not only to themselves and their stockholders, but to the public as well.

Wessel also addresses the shortcomings of the scientific community. He decries scientists' misapplication of risk/benefit analysis, their use of an adversarial approach, and their failure to communicate to the public the scientific and technological consequences of various options. Perhaps most egregious, however, is the scientific community's failure to conduct proper risk/benefit analyses. Like laymen, scientists often fall into the trap of making false and uninstructive comparisons. Hans Bethe's table comparing nuclear power hazards with other types of danger is an example of such faulty reasoning. Bethe compares the number of deaths per annum from motor vehicle accidents (50,000) with the number of deaths per annum attributable to "routine" radiation emission (2), and the number caused by nuclear reactor accidents (also 2). Apart from the dubious assumption that a small risk is acceptable, while a large one is not, simply no comparison is possible between the two types of hazards. A proper risk/benefit analysis would compare all the risks of nuclear power with all the risks of not having nuclear power, including: human lives lost versus human lives saved; health impaired versus health improved; contamination by radioactive
necessary studies and analyses. This post-hoc analysis results in biased witnesses (the notorious "battle of the experts"), incomplete analyses, and prejudiced findings.  

The author presents the scientific "consensus-finding conference" as his chief proposal for reform. The "consensus-finding conference" permits the scientist to follow his accustomed approach, without necessarily assuming the role of impassioned advocate or alienated moderate. Wessel's model would bring together as many qualified scientists in a particular area as possible, assisted by lay participants and observers of varied viewpoints. This group would attempt to isolate the issues, separate scientific questions from quality-of-life questions, and arrive at a consensus on the scientific issues. "Consensus" should be distinguished from "opinion." The goal is for the entire group to agree on how and to what extent the scientific community is divided (if it is divided) on a particular issue.

In order to succeed, a scientific consensus-finding conference should concern itself only with scientific issues, and not with questions of policy. The conference should seek a consensus, without negotiation or bargaining. To ensure fairness on procedural matters, it should have an impartial chairman who is not a scientist. To maximize the usefulness of the scientific consensus, the participants should be self-selected, with no qualified scientist excluded. Ample preparation time must be provided to afford wide publicity and permit full participation. Participation by laymen as observers should be encouraged. Participants would be compensated only for expenses. The author voices the hope that industry could be persuaded to cover the costs of the conference.

Wessel cites the 1975 and 1979 conferences on 2, 4, 5-T, and the National Coal Policy Project (NCPP) as endeavors by the scientific community which approximate the consensus conference he envisions. In material versus pollution and damage to the ecology caused by obtaining and using other energy sources; independence from versus dependence on Mid-East oil; and so on.

7 An honorable exception is the Chemical Industry Institute of Toxicology (CIIT). Although it owes its origin and financial support to the chemical industry, it is completely independent. It makes continuous studies of important specific "commodity" chemicals in order to discover any potential hazards, especially carcinogenic risks. Its findings are available to all. Although it is perhaps too soon to tell, Wessel thinks that CIIT promises to be a model for other branches of science and technology.

8 Wessel also briefly reviews alternative devices, such as panels of scientists, legislative endeavors, and the proposed "Science Court," but dismisses them as either unwieldy or too adversarial.

9 This type of consensus is distinguishable from a consensus arrived at by the traditional "scientific method," which is a long, drawn-out process, involving the gathering of evidence, the formulation and testing of alternative hypotheses, the exchange of ideas, and finally the publication of results in a scientific journal.

10 2, 4, 5-T is a herbicide which is widely used in agriculture and in range and forest control. When combined with another, similar chemical, the result is "Agent Orange," a defoliant that was widely used in Viet Nam.
1974, the Environmental Protection Agency had some doubts about 2, 4, 5-T and scheduled a hearing to determine whether it should be banned. Prior to the hearing, approximately ninety scientists, most of them not associated with either side of the dispute, held a conference to discuss the potential dangers of the herbicide. The report gave 2, 4, 5-T a clean bill of health and the EPA dropped its charges, but the issue reappeared when Viet Nam veterans claiming injuries caused by Agent Orange filed suit against the federal government. Another conference was held in 1979. Although an even larger number of scientists attended, it was markedly less successful. Most environmentalists boycotted the second conference, regarding it as a “sham” organized by and in the interests of industry, the Farm Bureau, and the Department of Agriculture. This experience demonstrates the importance of attracting noncommitted scientists as well as advocates of particular scientific and policy points of view.

NGPP represented an attempt by industry and environmentalists to eliminate some of the environmental obstacles that prevented wider use of coal as an energy source. Its principal focus was on economics, sociology, and some of the applied sciences, and its emphasis, in contrast to Wessel’s model, was on the policy issues involved. Despite the absence of representatives from government, labor, or consumer groups, it was successful; its two-volume, 814-page report “Where We Agree” has been highly praised. The NCPP has been faulted by many, however, for being elitist and nonrepresentative.

Wessel holds high hopes for the consensus-finding scientific conference. To the extent that a conference can achieve unanimity and clarity on some issues, eliminate false questions, and thereby focus attention on the real problems, it can achieve a great deal. Wessel, however, must confront the objection that any self-selected group, no matter how seemingly impartial, is bound to be considered elitist. In addition, such a conference will attract mainly those scientists most interested in the subject matter, who will nearly always be those who helped develop it, or others with a similar bent. This unfortunately will lead to the type of adversarial approach that Wessel is trying to avoid.

In his last chapter, “A Plea For Understanding,” the author deplores the bitterness which so often permeates the environmental and consumer groups on the one hand, and industry on the other. Although one must applaud this desire to make peace between the warring factions, one must also recognize that the problems lie deeper than mere disagreement on specific issues. We are dealing not merely with differences of opinion and abstract “quality-of-life” questions, but, quite literally, with matters of life and death—human and planetary survival. The author’s dispute-resolution proposals, aimed at lawyers, corporate managers and scientists, fall short of addressing the legitimate fears and
confusion of the public. One cannot fault an author for not covering a subject beyond the scope of his book. But the fact remains that the problem goes far beyond mere dispute resolution, important as that is. After all the disputes have been resolved, the basic problems will still be with us. Mankind must solve these problems if we are to survive.

Robert S. Pasley*
For the reader interested in constitutional law, its growth in the middle of the twentieth century, and the explosion of institutional litigation, this book seems full of promise. Its title promises an exploration of the relationship between constitutional law and the equitable decrees that have dominated the constitutional remedial horizon since *Brown v. Board of Education*. \(^1\) Mr. McDowell's conservative orientation\(^2\) promised, I thought, a counterpoint to Owen Fiss's excellent studies of the relationship between traditional equity doctrine and modern constitutional remedy.\(^3\) Perhaps because of my expectations, the book is disappointing.

The first five chapters summarize the history of equity, tracing its development in the writings of Aristotle, Cicero, Glanville, Bracton, St. Germain, Coke, Bacon, Hobbes, Lord Kames, and early American writers. The book recounts the early American fears of equity jurisdiction, the debate over whether equity courts should be distinct institutions, and the battles between codifiers such as David Dudley Field and those favoring fewer legislative norms. This background, however, is prelude to the last two chapters, in which Mr. McDowell discusses the issue that prompted him to write the book. He wishes to explore the legitimacy of Supreme Court decisions implementing school desegregation. “Is the judiciary, on the basis of the Constitution, legitimately empowered to make [the] policy choices” inherent in “such positive expressions of a judicial will as busing to achieve racial integration, educational enrichment programs to combat the lingering effects of segregation, and low-income housing distribution in our cities . . . ?”\(^4\)

Mr. McDowell disapproves of these developments. He adopts a fresh perspective in trying to show one of the ways in which the Court has gone astray. The judiciary implements many of the Court's “positive expressions of a judicial will” through injunctive decrees. Because injunctive relief is an equitable remedy, modification of the Court's views on equity could alter some controversial decisions, particularly school busing cases. Mr. McDowell proposes a change in attitude toward equity through greater fidelity to the historical scope of equity.

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He claims that well-understood boundaries limited the exercise of equitable jurisdiction. The framers intended that these boundaries be implicit limitations on the powers of federal courts, and that these limitations go a long way toward curtailing modern injunctive relief.

The above argument pervades the book, but Mr. McDowell also offers more specific criticisms, two of which, in modern context, are novel. Use of equity to grant relief to groups (such as Blacks), he claims, departs from tradition:

The equity power was never intended to be used to grant broad remedies to entire social classes; rather, it was intended to provide particular relief to specific individuals in cases where the aggrieved party had suffered a clear and irreparable injury for which the law, by its generality, could not provide a plain and adequate remedy. The invocation of the equity power by the Court in the school-desegregation cases has been little more than a sophistical means of cloaking its policymaking in the comfortable trappings of traditional judicial language. The result has been public policy, not equitable relief.\(^5\)

Mr. McDowell also believes that the merger of law and equity obscures the traditional limits on equity and makes the judges exercising both functions too powerful. He proposes "a stricter procedural distinction between law and equity."\(^6\)

The book’s principal argument, that traditional equitable principles were meant to and should continue to bind constitutional interpretation,\(^7\) omits consideration of several relevant issues. Adoption of the Constitution created a need to coordinate the new document with pre-constitutional equitable principles. Equity developed in a political system unbounded by a written constitution, and in which courts were closely allied with the executive. Doctrines developed in that context, without modification, should not be expected to prescribe the appropriate relationship between post-constitutional judicial behavior and equity jurisprudence. Given the need for new coordinating principles, it will not do to argue, as Mr. McDowell does, that the Court should simply return to early or pre-constitutional equity doctrine. If changes in equity practice have occurred, they may simply be accommodations to the different legal environment in which courts operate. Change does not always signify infidelity to the past.

Mr. McDowell fails to address another issue that one who bemoans the judiciary’s alleged intrusions upon other branches of government should discuss. The growth in nature and scope of the federal judiciary has not occurred in a vacuum. Neither society nor federal and state governments bear a strong resemblance to their eighteenth-century

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5 Id. at 121-22.
6 Id. at 122.
7 Id. at 4, 105-06.
foundations. Congress and the Presidency in 1982 look little like they did in 1789; both have undergone enormous expansions. Some scholars recognize the potential relationship between the growth of the American state and that of the judiciary. Scholars like Mr. McDowell, who urge both strict adherence to principles of judicial restraint and fidelity to the original separation of powers, may be demanding the impossible. Given the growth of the state and of the nonjudicial branches, the Court may be unable to fulfill its role in maintaining the separation of powers without doctrinal development that somehow corresponds to the growth of the legislative and executive branches.

Mr. McDowell's narrower criticisms of modern equity cases also need refinement. He claims that historically equity only provided relief to individuals in cases in which legal remedies were adequate. In recommending that the Court embrace this view, Mr. McDowell ignores two relevant lines of inquiry. First, even if equity were solely the servant of individual litigants, the Supreme Court is not and has not been a forum for individuals for more than half a century. The Court, by its own rules, and with Congress's and the nation's blessing, services issues, not individuals. Even in the heyday of desegregation decisions, not all Black litigants with strong discrimination cases received relief from the Court. The Court's shift away from servicing individuals is distressing. But there is no obvious way to modify its modern function without drastic and questionable changes in the federal judicial structure.

Second, Mr. McDowell oversimplifies the traditional role of equity by ignoring equity's use as a vindicator of group rights. In particular, he does not mention the connection between equitable decrees and modern class actions. A rich literature exists in this field, some of which undermines Mr. McDowell's views about the Court's infidelity to the hypothesized individualist tradition of equity. It may be that he can reconcile equity's role as the source of modern class actions with his perception that equity only serves individuals, but such reconciliation requires express discussion.

Mr. McDowell also hopes that reseparating law and equity will lead to a renaissance in the substantive equity doctrines that bound courts of chancery. Given that merged courts do not disavow substan-

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12 G. McDowell, supra note 4, at 106.
tive equity principles, it is doubtful that resereparation alone will ensure that future chancellors will feel restrained to the degree Mr. McDowell desires. Resereparation or some lesser step to achieve stricter procedural distinctions between law and equity probably would change little of substance, at the cost of increased procedural confusion. Such confusion played no small role in eliminating the distinction between law and equity courts. At a minimum, Mr. McDowell should discuss how a new separation would avoid the old problems.

Critics of the Court's implementation of the desegregation decrees also owe some explanation of what the Court should have done. Two obvious alternatives to the Court's approach are at least as unattractive as anything the Court has done. First, the Court might have simply declared state segregation statutes to be unconstitutional and left it to localities to determine how integrated their formerly segregated schools would become. But in school systems determined to resist pupil assignment systems that might lead to integration, the course of local events often would frustrate any developments that might tend to end segregation. In this area, the Court correctly anticipated (or learned) that a simple declaration of unconstitutionality would not suffice. Such a course would have made a mockery of the rule of law.

Second, the Court might have relied on a traditional legal remedy, money damages, to redress the deprivations visited upon students on account of race. Prior and subsequent to Brown, the Court has approved of monetary damages to redress constitutional deprivations.13 Had the Court imposed damages, critics of desegregation decisions could not allege distortions of equity doctrine and Mr. McDowell could not have written this book. Many southern (and some northern) school districts, however, would have no money to do anything but pay damages.

Mr. McDowell ignores the alternatives to the Court's chosen course or treats them in a simplistic fashion. In his approving discussion of merely declaring segregation statutes to be unconstitutional and enjoining their enforcement, he fails to note that course of action's obvious problems.14 He does not mention the alternative of damages. These omissions conveniently spare Mr. McDowell the task of carefully weighing the costs and benefits of the possible approaches to implementation of desegregation orders.

Mr. McDowell, while approving of Brown, does not like the course of subsequent school desegregation decisions, and believes that something basic must be wrong with them. He focuses on perversion of eq-

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14 G. McDowell, supra note 4, at 109.
15 Id. But see id. at 97-98, 131-32.
uity as the fatal flaw. This view may be worth further debate, but Mr. McDowell's book fails to show either that the decisions implementing school desegregation are uniquely unfaithful to equity tradition or that greater fidelity to that tradition would lead to substantially different results. As constituted, his argument is neither enlightening nor persuasive.

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