BOOK REVIEW

AGENT ORANGE ON TRIAL: MASS TOXIC DISASTERS IN THE COURTS


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In a high-technology society many of us are exposed to toxic substances, often without realizing it. The air in our homes might contain radon. The fish we eat might be contaminated with PCBs. News reports abound with stories of newly discovered latent hazards and frightening industrial accidents, like the tragedies at Bhopal and Chernobyl. While we may worry about it, most of us will never know precisely what we have been exposed to or what, if any, illnesses will be caused by such exposures.

By 1978, some veterans of the Vietnam War began to suspect that what seemed like an unusually high rate of disease and birth defects might be related to their wartime exposure to Agent Orange. After the Veterans Administration refused to recognize most claims based on injuries resulting from Agent Orange, the veterans and their lawyers decided to seek redress from the manufacturers.


Agent Orange on Trial: Mass Toxic Disasters in the Courts presents a timely and disturbing picture of the American judicial system's ability to cope with a mass toxic disaster. In addition to illustrating the enormous practical and procedural problems involved in litigating tort claims arising out of such a disaster, the Agent Orange case starkly posed a key question in current tort law: Is litigation an appropriate tool for compensating the victims of widespread, long-term exposure to toxins when it is difficult or impossible to identify the proper plaintiffs or defendants?

Professor Peter Schuck has given us the first comprehensive description of the Agent Orange case. He vividly describes the development, litigation and putative settlement of the Vietnam veterans' class action suit against the

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3. In re Agent Orange Product Liability Litigation (MDL No. 381). On April 21, 1987, after the book's publication, the Court of Appeals for the Second Circuit decided nine appeals

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makers of Agent Orange, a herbicide that was used to defoliate the Vietnamese jungles from 1965 to 1970.

The book is divided into three parts. The first describes the social, political, and legal context in which the suit developed. The last presents a theoretical discussion of some of the problems inherent in mass toxic tort litigation and an outline of some alternatives. The middle section, which constitutes this book's singular contribution, chronologically describes the case. The book is not limited to a theoretical analysis of the legal issues involved. Although Professor Schuck does an admirable job of translating difficult issues in tort law and procedure into lay terminology, in my view, the book's great strength is that it provides the reader with a rare opportunity to see major litigation develop from the perspective of the lawyers who are making the strategic decisions. Not only does this show how often practical considerations affect or even create the law of a case, but it makes for suspenseful reading as well.

I.

THE POLITICAL BACKGROUND

In the first section, Professor Schuck describes how the collision of two distinct phenomena of the late 1970s produced the Agent Orange litigation: the veterans' depressing social, economic and physical situation, and increasing recognition of the hazards posed by widespread use of synthetic chemicals.

Schuck writes that, upon their return, the veterans were vilified by some and ignored by most as unwelcome reminders of the United States' failed war in Vietnam. They looked for civilian jobs during a time of recession with high inflation. Due to better medical care that prevented deaths in Vietnam, a

arising from the litigation. Judge Weinstein's decisions were upheld with one exception pertaining to the creation of an independent foundation to develop and fund programs for Vietnam veterans. See infra note 32.

Editors' Note: In late 1987, Professor Schuck published an enlarged edition of his book with an afterword discussing these appeals.

4. Seven manufacturers were parties to the settlement agreement: Dow, Diamond Shamrock, Hercules, Monsanto, T.H. Agriculture and Nutrition, Thompson Chemicals and Uniroyal. Hoffman-Taff and Riverdale, though parties to at least some of the individual suits, were dismissed from the case by Judge Pratt. Professor Schuck does not state whether these corporations were the only manufacturers of Agent Orange during the relevant time.

5. Agent Orange is composed of equal parts of two synthetic chemicals, 2,4-D and 2,4,5-T.

6. Schuck recounts that beginning in 1960 the United States Army began spraying various mixtures of 2,4-D and 2,4,5-T and other chemicals—known as Agents Blue, White, Purple, Green and Pink, according to the colored stripe on the containers—on Vietnamese jungles. When the United States involvement escalated in late 1964, aerial spraying also increased. Agent Orange was introduced in 1965 and proved especially effective in defoliating woody and broad-leaved vegetation. Approximately a third of a million gallons were sprayed in 1965. Use peaked at 3.25 million gallons in 1969. In total, approximately 11.2 million gallons of Agent Orange were sprayed over as much as ten percent of South Vietnam's land area. Agent Orange accounted for sixty percent of all the herbicides used in Vietnam by the United States' armed forces. P. SCHUCK, supra note 1.

7. P. SCHUCK, supra note 1, at chs. 1 and 2.
greater percentage of veterans returned alive from Vietnam with serious disabilities than from any earlier war. A significant number had serious drug problems. As time went by, a growing number of veterans died prematurely, reported serious health problems or claimed that their children were born with serious birth defects. After a local television station broadcast a story on Maude deVictor, a benefits counselor at the Veterans Administration in Chicago, who thought she discerned a connection between some veterans' claims and exposure to Agent Orange, a number of veterans thought they had discovered an explanation for some previously inexplicable health problems.

The second phenomena that gave rise to the case, in Schuck's view, was the extensive development in the preceding decades of synthetic chemicals of enormous practical value and, all too frequently, insidious toxicity.

Agent Orange was one. It is compounded of equal parts of 2,4-D (developed in the 1930s) and 2,4,5-T (developed during World War II). Initially, these were regarded as model herbicides, more effective and safer than their predecessors. However, by 1952 Monsanto Chemical Company, later a major manufacturer of Agent Orange, had informed the army that 2,4,5-T was contaminated with a toxic substance. By 1963 the Army's review of toxicity studies indicated some increased risk of chloracne (a severe, but reversible skin disorder) associated with exposure to 2,4,5-T. By the late 1960s the contaminant was identified as TCDD, a form of dioxin. It was not a component of the herbicide but a byproduct of the manufacturing process. In 1969, Ralph Nader's Raiders leaked a report done for the National Cancer Institute indicating that 2,4,5-T caused birth defects. Under pressure from intense domestic and international opposition to the defoliation program, the government stopped using Agent Orange in Vietnam in 1970.

Schuck explains that between 1970 and the filing of the Agent Orange lawsuit in 1978 there was increasing scientific evidence of dioxin's acute toxicity and widely-reported tragedies that alerted the public to the risk. He notes, for example, that a town in Missouri was evacuated and abandoned in 1971 after dioxin contaminated waste oil had been sprayed on its roads. In 1976, an explosion at a 2,4,5-T plant in Seveso, Italy caused serious illnesses and evacuation of the surrounding community. Nevertheless, Schuck writes that the Veteran Administration maintained that chloracne was the only service-related disability it recognized from exposure to herbicides.

Under the circumstances one might have thought that the major veterans organizations, the American Legion and the Veterans of Foreign Wars, would have lobbied for a change in VA policy. But Schuck points out that because the Vietnam veterans had not joined those organizations in large numbers and because the leadership tended to be traditional, conservative and pro-military,

the legion and the VFW were unlikely to adopt a cause supported by anti-war and environmental groups. Other fledgling organizations, like Vietnam Veterans against the War, Citizen Soldier and the National Association of Concerned Veterans, lacked the muscle to move the VA. They recognized, however, that in Agent Orange they had an issue that might galvanize their membership and attract much-needed publicity.

Thus, according to Schuck, the stage was set for the Agent Orange lawsuit. He plainly believes that a major impetus for the litigation was political rather than compensatory. The Vietnam veterans' relative political impotence forced them into federal court to pursue what was, at least in large part, a political goal of publicizing the hardship they had suffered during the war and at the hands of the society that had sent them to fight.

Arguably, this kind of political goal was not appropriate to—and was not realized by—the litigation. The veterans might have been better off devoting the time, energy and money spent on the litigation in political organizing. On the other hand, if the Vietnam veterans could not organize effectively, how likely is it that a more heterogeneous group of people exposed to toxins would be able to do so? This suggests to me that while non-litigative approaches to the problems of toxic exposure may be theoretically preferable, they may not be practicable, at least in the short term. Therefore, courts probably will continue to adjudicate mass toxic torts.

II.
THE CASE IS BORN

The second section of the book, which describes in scrupulous detail how the case developed, reads like good journalism. Schuck presents the events and issues as they appeared to the participants at the time.

Some readers may be shocked by the fortuity with which such a major lawsuit began. A veteran named Paul Reutershan, dying of cancer in Connecticut, happened to read about Maude deVictor and became convinced that his disease and that of many other veterans had been caused by Agent Orange. Before his death he enlisted the aid of another veteran, Frank McCarthy, who formed Agent Orange Victims International. Reutershan had contacted a personal injury attorney on Long Island, Edward Gorman, who decided that he could not handle the case alone and eventually persuaded Victor Yannacone to help.

That was a fateful event, as Schuck describes it, for Yannacone's personality, philosophy and work habits probably affected the litigation more profoundly than any other individual save Judge Jack Weinstein. Although Yannacone was a workers' compensation lawyer, he had an unusual interest and background in toxic tort litigation. He had helped to form the Environmental Defense Fund, which initiated a successful legal campaign against DDT. Schuck calls Yannacone
a passionate partisan, a crusader who was personally and ideologically committed to subduing toxic chemicals in the interest of preserving ecological balance and human health. The incandescent intensity of his commitment, resonating through his flamboyant oratory, charismatic persona, and eccentric operating style, was to shape the course of the Agent Orange litigation in profound, bizarre, and (for us) instructive ways.\textsuperscript{10}

The lesson Schuck wants us to learn from Yannacone's role, however, is not clear. Plainly he was an energizing force behind the litigation; the case probably would never have gotten off the ground without him. The veterans generally trusted and supported him as they did few of the other attorneys who became involved in the case. On the other hand, Schuck makes it clear that other lawyers found Yannacone a difficult, if not impossible, person with whom to work. The veterans' case was constantly bedeviled by two problems: lack of money, and the fact that the plaintiffs' attorneys could never agree among themselves on how to handle the case. Yannacone evidently contributed in no small way to that discord. Clearly, he had a vision of the case that he would not compromise, regardless of the practical or legal impediments. Because, however, he was one of the few attorneys, if not the only one, with any rapport with a significant number of veterans, the other attorneys could not afford to disassociate themselves from him.

With characteristic reserve, Schuck refuses to enter a verdict for or against Yannacone. Was he a dedicated advocate who boosted an impossible case into a landmark litigation or was he a fast-talking promoter who rarely slowed down enough to do his legal homework? I would have liked to know. Professor Schuck provides ample detail from which one could draw either conclusion, depending upon one's political sympathies and how much independent knowledge one has about the case. Given the depth of his research into this case and the number of participants he interviewed, Schuck must have formed some opinion. Although I generally appreciated his studied objectivity, this seemed to me one instance in which some evaluation would have been illuminating.

In any event, Yannacone developed the litigation strategy that defined the case. He decided to file a class action suit and then mobilize lawyers throughout the country to file similar suits on behalf of veterans in their jurisdictions. Under the multi-district litigation statute,\textsuperscript{11} all the suits could be transferred to one district. The plaintiffs' lawyers then would seek to consolidate all the local suits into one national class action in federal court in New York.

Yannacone succeeded. The suit was filed in 1978 in the Eastern District of New York and assigned to Judge George C. Pratt. Although Pratt indicated that he would certify the class under Federal Rule of Civil Procedure

\textsuperscript{10} P. Schuck, \textit{supra} note 1, at 43.

23(b), he never actually did so. After Pratt had been elevated to the Second Circuit in late 1983, Judge Jack Weinstein inherited the case and certified the class, despite the fact that the drafters of Rule 23 had written that class actions should not be used in mass tort cases. It was clear, however, that the litigation could not be managed in any other way. Ultimately the case represented a consolidation of more than 600 cases with more than 15,000 named individuals against seven corporate defendants and the United States government.

III.
WHO WERE THE PLAINTIFFS AND DEFENDANTS?

The lawyers faced a case of unprecedented size and legal complexity. The case presented two of the most troubling issues in current tort law, commonly referred to as the problems of the indeterminate plaintiff and the indeterminate defendant. Both problems are aspects of tort law's traditional requirement that a plaintiff demonstrate causation, i.e., that a particular defendant caused a particular harm. Schuck describes how difficult it was in the Agent Orange case to show that any given plaintiffs were actually harmed by Agent Orange. With the possible exception of chloracne, the veterans suffered from illnesses, such as lymph cancer and liver disease, that are not specific to exposure to 2,4,5-T and are indeed widespread in the general population. Even if the plaintiffs could demonstrate an increased statistical risk of incurring any of the claimed diseases after exposure to Agent Orange, Schuck notes that they faced a problem the DES and asbestos plaintiffs generally did not: it was impossible to determine with any accuracy which veterans had actually been exposed to Agent Orange and at what levels of dioxin contamination.

It was equally impossible to tie any given defendant with any particular exposure. The defendants' various brands of Agent Orange had been mixed together and shipped to Vietnam with no further identification than an orange stripe down the side of the barrel. Complicating the problem was the fact that the levels of dioxin contamination apparently varied from manufacturer to manufacturer and from batch to batch.

Paradoxically, as Schuck explains, this problem of the indeterminate de-

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13. In this respect the Agent Orange plaintiffs faced more difficult causation issues than had most plaintiffs in the DES or asbestos litigations. Vaginal adenocarcinoma is a rare disease which is relatively specific to DES exposure. Similarly, asbestosis and mesothelioma (but not lung cancer) are relatively specific to asbestos exposure. See, e.g., Bichler v. Eli Lilly & Co., 55 N.Y.2d 571, 436 N.E.2d 182, 450 N.Y.S.2d 776 (1982) (DES); Borel v. Fibreboard Paper Products Corp., 493 F.2d 1076 (5th Cir. 1973) (asbestos).

14. A basic issue in the Agent Orange litigation and in mass toxic torts cases generally is what evidence of causation is acceptable: statistical or specific. Professor Schuck and Judge Weinstein appear to think that, while evidence of a statistical "excess risk" to an exposed population is significant, any compensation program, whether achieved through litigation, insurance or government benefits, should require at least sufficient evidence of specific causation that tends to exclude other possible causes of the injury. See P. SCHUCK, supra note 1, at 185, 271.
fendant actually worked to the plaintiffs’ advantage. The same problem had characterized the earlier litigation over DES, which had been sold generically, and thus could not be traced to any particular manufacturer. Several state courts had recognized variations on alternative, market-share or concert of action liability as a basis for liability for one or more defendants who had sold DES in the relevant market despite the absence of any proof that they had sold the particular pills which harmed the plaintiff.

Schuck writes that Judge Weinstein was clearly willing to apply one or more of these theories to keep the defendants in the case. The various defendants had controlled different shares of the market and had produced Agent Orange with higher or lower average levels of dioxin contamination. As a result, Schuck explains, the defendants’ camp was actually divided against itself, some being more or less willing to settle or to reveal information that would indicate a high standard of care at the expense of other defendants who had produced “dirtier” Agent Orange.

Schuck thoroughly presents another major issue which was whether the government should or could be a party to the litigation. The defendants sought contribution and indemnity from the government for any liability that they might incur to the plaintiffs under the rubric of the “government contract defense,” i.e., that they had merely supplied a product meeting government specifications. Judge Pratt had found, however, that the government was immune from tort liability to the veterans for injuries incurred during the war. He had further found that to permit the government contract defense would undermine the purpose of the immunity doctrine. He dismissed the government from the action but he never actually signed the order.

Judge Weinstein relied on this technicality to reinstate the government as a defendant in March, 1984, just weeks before the scheduled date for trial. Although Pratt had considered the issue and the parties had treated the government’s dismissal as the law of the case, Judge Weinstein concluded that governmental tort immunity did not extend to the independent claims of members of servicemen’s families. As discussed below, Professor Schuck makes it clear that in Judge Weinstein’s view of the case, the government’s participation was essential to settlement. The effect of this decision, however, was to force the government to go to trial within a matter of weeks in a complex, billion-dollar class action, despite the government’s argument that “it

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15. See, e.g., Sindell v. Abbott Laboratories, 26 Cal. 3d 588, 607 P.2d 924, 163 Cal. Rptr. 132 (1980), cert. denied, 449 U.S. 912 (1980). There were, however, at least 200 DES manufacturers, many of whom could not be brought before one court. In contrast, there were, apparently, only nine manufacturers of Agent Orange and all were before the court. See P. SCHUCK, supra note 1, at 183-84.

had conducted no discovery or trial preparation and had maintained strict neutrality as a nonparty, furnishing the parties (now to be its adversaries) with documents and witnesses that it would have withheld as a litigant."17

This ruling is only one of two by Judge Weinstein that Schuck seriously criticizes. (The other is the judge's summary dismissal of the approximately 400 cases that had opted out of the class.) Professor Schuck consistently describes Judge Weinstein, who perhaps not coincidentally is also a law professor, as brilliant, clever, and penetrating. Professor Schuck is generally tolerant of, even impressed by, what he admits are Judge Weinstein's fairly frequent evasions or inventions of law. Schuck seems to draw the line only when a decision strikes him as fundamentally unfair. Of course, the definition of what is unfair is inherently subjective and founded largely, particularly in a case like this, on one's basic political attitudes about the government, industry and the court system.

A final legal issue of major significance involved the determination of applicable substantive law. Plaintiffs had argued, and Judge Pratt had accepted, that federal common law should govern the veterans' claims. The Second Circuit reversed, holding rather implausibly, in Schuck's view, that the federal government had no interest in assuring that the rights of its veterans were adjudicated in a consistent manner. The consequence of this ruling was dire for the plaintiffs. It meant that many of the plaintiff's claims would simply be barred by the statutes of limitation of the states in which they resided. Even if that were not the case, the federal court in the Eastern District of New York faced almost insuperable problems in deciding what law, including what choice of law rules, would apply in a class action involving plaintiffs from all over the country who had allegedly been injured by events in this country, Vietnam, Cambodia and Thailand.

Judge Weinstein had a solution that compensated in cleverness for what it lacked in precedent. He invented for the occasion a "national consensus law" in which he posited that all the states would apply essentially the same rules to each of the veterans' claims. Despite the fact that such a consensus plainly does not exist, this ruling allowed him to bypass the Second Circuit's decision and made the case at least theoretically justiciable.

IV.
The Settlement

In May, 1984, the case was settled for $180 million, the largest tort settlement in history. The plaintiffs had been represented by almost 1500 law firms around the country that had spent at least $10 million. The defendants had spent almost $100 million preparing for trial. The settlement fund grows at the rate of more than $40,000 a day and, by the date of the book's publication, the court had expended more than $2 million simply to maintain the fund. It

17. P. Schuck, supra note 1, at 137.
also had to create a computer center to process more than 250,000 claims already filed against the fund.

To those unfamiliar with the Agent Orange case, it may come as a surprise that the majority of veterans did not feel vindicated by the huge settlement. In part, Schuck attributes this to the fact that the settlement fund, which looks miniscule next to the $4 to $40 billion damages Yannacone originally claimed, will not be distributed until all appeals are terminated. Even then, the cash payments for death ($3,400) and disability ($12,800) will not be large.

More importantly, Schuck believes that for many veterans the settlement "defeated the central purpose of the Agent Orange case, which had always been to publicize, palliate and in some sense justify the veterans’ sufferings by allowing them to tell their story, find an authoritative explanation for their conditions, and assign moral and legal responsibility." As Michael Ryan, one of the lead veterans in the case said, "We had no say in the settlement. Is it a lawyers' case or the clients' case? . . . the veterans got nothing. $180 million won't change anything."

This divorce between the clients' goals and the case's outcome is in large measure a function of the federal class action device. The class action permits individual plaintiffs with similar claims to litigate the common elements of their cases in one representative action. Because this procedure usually saves the plaintiffs money, and may even make small individual claims worthwhile, it seems to be a tool for the "little guy." Readers may be surprised, then, to see that in the Agent Orange case one of the principal effects of the device was to rob the individual veterans of control in defining the issues and the settlement.

The vast majority of the members of the class were, of course, never heard from. More importantly, there was good reason to fear that they never heard from the court and never knew that their rights were being adjudicated. Despite Eisen v. Carlisle & Jacquelin, in which the Supreme Court held that all class members must receive actual notice by mail or in person if they could be identified through reasonable effort, Judge Weinstein authorized mailed notice only to those veterans who had already filed claims in court or who were listed in the VA’s Agent Orange Registry. For the rest of the class members he authorized television and newspaper announcements and requested that each state’s governor help notify veterans.

To coordinate the activities of 1500 law firms, and to help him do the work necessary to litigate the class action, Yannacone had first enlisted the help of twelve other lawyers who formed a consortium, Yannacone & Associ-

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18. Id. at 171.
19. Id. at 169.
20. See id. at 163-66.
22. P. Schuck, supra note 1, at 126-27.
ates. The consortium then entered into associate counsel agreements with law firms around the country that represented individual plaintiffs in the class action. In September, 1983, the consortium dissolved due to a combination of financial difficulties, dissatisfaction with Yannacone's handling of the research on causation, and attacks by other lawyers who were eager to manage a landmark and potentially lucrative case.\(^\text{23}\) Control of the litigation passed to the Plaintiffs' Management Committee ("PMC"),\(^\text{24}\) which was not headed by Yannacone. Most of the members of the PMC had no clients of their own. This fact, coupled with centralization of power and chronic dissension, meant that the group making the key judgments in the litigation was removed, for the most part, from the plaintiffs' concerns. Most significant, Schuck believes, to the breakdown of the traditional attorney-client relationship was that the plaintiffs' lawyers never had enough money to assemble the kind of information on their own clients that was needed, nor did they have adequate resources to conduct discovery of the defendants. What money the lawyers had was solicited from lawyers who were, in essence, passive investors. In return for the money invested, they obtained advantageous fee-sharing agreements with the lawyers who did the bulk of the work.\(^\text{25}\) This fact may disabuse some readers of idealistic illusions about how public interest tort litigation is financed. These fee-sharing arrangements were also a continual source of conflict among the lawyers vying for money and control of the case. Schuck reports that one consequence was that "the settlement was bitterly attacked by many veterans in part because it was negotiated by lawyers whom they had not retained, did not know, and whose motives they did not trust."\(^\text{26}\)

Less evident to the plaintiffs as a cause for their alienation, but more noticeable to the reader of this book, is Judge Weinstein's tremendous control over the litigation. As "guardian" of the interests of all the class members, the judge in a class action is vested with greater powers than in a conventional case. Because these powers were available and because Weinstein used them aggressively, the litigation was guided primarily by his concept of the best solution. Thus, for example, Weinstein insisted on maintaining the government as a party despite the fact that the government had previously been dismissed from the action by his predecessor, Judge Pratt, and despite the fact that the majority of veterans did not want to sue the government. He believed that the government had neglected the veterans and was determined to force it to participate in a benefit program for them. Schuck quotes him as saying in October, 1983, shortly after inheriting the case from Judge Pratt, that

> the intelligent way to handle it would be if there is any liability . . . [for] the VA to take over the whole thing, then to just have the manufacturers make a lump sum donation to help defray some of the

\(^{23}\) Id. at 102-09.  
\(^{24}\) Id. at 123-24.  
\(^{25}\) Id. at 204.  
\(^{26}\) Id. at 265.
costs of the Veterans Administration paying the costs of the damages, if any, attributable to Agent Orange.\textsuperscript{27}

Perhaps even more significantly, he pushed the parties to settle because of his twin beliefs that the veterans had been badly treated and that they could never prove causation.

One may well ask why Weinstein did not simply dismiss the plaintiffs' class action as soon as he became convinced that they could not prove causation. He did dismiss roughly 400 claims that had opted out of the class action. This created the anomaly, understandably difficult for the opt-out plaintiffs to fathom, that veterans who had participated in the class settlement were entitled to share in a $180 million fund while the opt-outs would be denied the opportunity to recover. Lawyers recognize that the $180 million settlement represents the value to the defendants of getting rid of a lawsuit that had already cost them approximately $100 million to defend and does not approximate the value of the plaintiffs' claims.

The settlement, however, was not simply the product of the lawyers' negotiations. Instead, it was strenuously engineered by Weinstein and the special masters he employed to manage the case. Schuck writes that Weinstein "played a massive game of chicken in which he made highly questionable decisions while working for a settlement that would render them invulnerable to appeal. Through these strategems, he transformed the court from the essentially reactive, umpirelike institution that Pratt embodied into that of an active, engaged policymaker."\textsuperscript{28}

Schuck plainly approves of Weinstein's active policy-making although he recognizes that the policy might not always be so attractive if crafted by a less gifted judge or by one with a different political outlook. I think, however, that Schuck does not adequately address a fundamental question. If Weinstein really believed that the plaintiffs were "legally entitled to zero,"\textsuperscript{29} why did he use his power to help them get anything?

One answer is that Weinstein was not helping the plaintiffs at all, but was actually trying to cut the costs that the plaintiffs were imposing on the defendants and the court system by pursuing claims that could never result in recovery. Since, arguably, the procedural device of the federal class action had allowed a worthless group of claims to survive and acquire a "nuisance value" of $180 million on the eve of trial, the court was justified in aggressively managing that device to deter further waste.\textsuperscript{30} On the other hand, it seems likely that the bulk of the defendants' expenses were incurred in the forced march to trial that Judge Weinstein led from the date in October, 1983, when he took over the case to May 7, 1984, the date he fixed for jury selection. Left to their own devices, the plaintiffs almost certainly would not have assembled their

\textsuperscript{27} Id. at 115.
\textsuperscript{28} Id. at 259.
\textsuperscript{29} Id. at 206.
\textsuperscript{30} See id. at 271.
case for years and the defendants might have waited them out at relatively little cost. In fact, given their financial and organizational difficulties, the plaintiffs might never have succeeded in bringing the case to trial.

Whatever the case may be, one must also question why the parties themselves would not have been the better judges of appropriate costs. One problem, of course, was that the plaintiffs' attorneys apparently had no idea of the value of the case: their original claim for damages was in the $4 billion to $40 billion range in part because no one knew (or knows now) exactly how many people were members of the class. Nor were they able either financially or managerially to put together the kind of epidemiological studies that would have demonstrated the statistical risks, much less the specific harms, created by Agent Orange. The analysis comes full circle. One goal of the lawsuit was to discover and define what Agent Orange had done, but the lawsuit could not proceed until that information was acquired.

Weinstein's settlement was designed in part to solve this conundrum. Forty-five million dollars of the fund was not paid out in cash benefits, but was used to create a 25-year trust fund to provide services to members of the class. The precise services have not yet been defined. But one consequence—direct or indirect—will almost certainly be the development of a data base for evaluating the effects of Agent Orange. The settlement has essentially created a benefit program of the sort normally funded and operated by the government. Is it fair to conclude that since the VA had not funded such a program for the Vietnam veterans, Judge Weinstein created one, paid for by the defendants? That, in essence, seems to be what Weinstein thought should happen from the moment he took over the case.

The merits of the settlement will be difficult to evaluate until the funds are distributed. Plainly, Weinstein has succeeded in treating the veterans equally, except for those who opted out of the class. As a result, the vagaries of individual litigation, wherein some injured veterans might receive massive awards while others might go uncompensated, will be avoided. He has also held the industry accountable for whatever injuries are attributable to Agent Orange, while simultaneously ensuring that none of the corporate defendants will be threatened with bankruptcy (the legal strategy Johns-Manville turned to because of its asbestos-related litigation).

The government remains uninvolved. This seems paradoxical in light of the fact that there are two independent reasons to justify government involvement. One is the federal government's presumed interest in the welfare of its veterans. The other is its role in approving, perhaps even commissioning, the manufacture and use of Agent Orange in Vietnam. This latter factor may well appear in other mass toxic exposure cases. As a tremendous purchaser of

31. Id. at 45.
32. But see supra note 3. The Second Circuit, while upholding the creation of the fund, reversed Weinstein's decision to delegate control of the fund to an independent board of directors. The court held that the district court must approve any programs paid for by the fund.
goods and services in this country and regulator of numerous activities, it would be surprising if the government were not an interested party in many future toxic tort actions. This suggests to me that a starting point for dealing with toxic exposure is a clearer definition of the government's responsibility for remedying the consequences of mass toxic exposure. In this respect it seems unfortunate that the Vietnam veterans were not more successful in highlighting the government's role in their exposure to Agent Orange.

V.
THEORETICAL ALTERNATIVES

In the concluding two chapters, Schuck very briefly summarizes some of the leading scholarly proposals for handling mass toxic disasters. This section of the book is the least successful because it is too cursory for the specialist and too technical for the generalist. In fairness, full treatment of the issues in these chapters would have required at least another book. Professor Schuck does, however, succeed in putting the issues in the Agent Orange litigation in a theoretical context.

Professor Schuck believes that, in fashioning this settlement, Weinstein actively adapted and mixed traditional tort law with Professor David Rosenberg's "public law" approach to mass toxic torts.33 This approach differs from traditional tort law in two key respects. First, causation can be established by statistical evidence of an increased risk rather than by proof of actual harm. A defendant's liability is apportioned according to the percentage of injuries attributable to that defendant's activity. Second, class actions are used to achieve non-individualized damage awards, such as scheduled amounts for general categories of injuries and insurance funds for the class as a whole. Schuck notes that the public law approach is clearly more efficient than traditional tort models for dealing with mass toxic exposures, particularly where causation is difficult to establish.

Schuck notes an interesting criticism of the public law approach to causation issues. In order to achieve efficiency in compensation, the public law approach necessarily subordinates individual interests to collective goals. These goals are not easy to define, particularly in the course of litigation. Even if one is willing to entrust such determinations to the parties to the lawsuit or to the judges, there is a powerful argument that the necessary calculus may not be one the courts are capable of performing. Professor Schuck refers to Peter Huber's observation that, if a policy is really designed to make society safer, it must assess not whether a particular substance increases the risk of a particular harm but whether it increases the risk of the totality of harm, taking into consideration any pre-existing risks that the new substance may reduce.34

Among the host of imponderables this analysis would engender would be a
calculation of how many soldiers' lives were saved because the Vietnamese
jungles were laid bare by Agent Orange.

Professor Schuck concludes his fascinating book with a brief outline of
alternatives to litigation, such as universal insurance plans for victims of toxic
exposure, compensation programs comparable to workers' compensation and
more comprehensive regulation. Although he notes some advantages and dis-
advantages of each, he explains that a thorough evaluation of their merits
would be beyond the scope of his book. It is clear that none of the alternatives
represents a panacea. None can do away with some mechanism for determin-
ing causation. The insurance and compensation programs might not effect-
vively deter undesirable sale and use of toxins. All of the proposals would be
expensive.

Schuck's concededly sketchy conclusion does not undermine the impor-
tant contribution this book makes to the literature on mass toxic torts and
litigation in general. Although I believe that the Agent Orange litigation in
the aggregate presents a singular combination of phenomena peculiar to the
Vietnam War, the 1970s, and an activist judge, its components illustrate
problems that are sure to arise in the future. How do lawyers identify plain-
tiffs when exposure to toxins may be widespread and long-term, and when
symptoms may be latent for years and may not be specific to the toxins? How
should liability be determined or apportioned when a substance is marketed
generically by numerous entities? How, as a practical matter, can lawyers and
courts manage cases of this size and complexity? What law should apply?
How should compensation programs be designed and funded?

This book is a fascinating, readable account of lawyers and judges dealing
with some of the most important issues in product liability and procedure
today. It is a marvelous book for law students. As for their teachers, Profes-
sor Schuck gives himself away when he writes, "it was a dream case, the per-
fect hypothetical made flesh."35

35. P. SCHUCK, supra note 1, at 257.