Coping with Insidious Injuries: The Case of Johns-Manville Corporation and Asbestos Exposure*

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Litigation involving the Johns-Manville Corporation and asbestos related diseases shows the complexity of dealing with the growing problem of insidious injuries. These are injuries, often large scale, in which the causes are rendered obscure by (a) a latency period, (b) manifestation only in a segment of the exposed population, (c) manifestation in heightened risk of diseases for which there are other causes, and/or (d) the social and spatial dispersion of the injured people. Powerful corporate actors like Johns-Manville are shown to be able to postpone and sometimes escape liability, but also to embody the potential capacity to pay compensation to victims of long-latent disease. Johns-Manville's bankruptcy reorganization was not a travesty of justice, as has been alleged, but a way of balancing the interests of present and future victims. A tension between goals of compensation and deterrence or punishment is revealed. We argue that minimizing insidious injuries depends less on punishment than on effective data collection, analysis, and public dissemination. Incentives are needed to make managers give early and full information about dangerous products and processes, but the threat of tort litigation can have the unintended consequence of leading managers to withhold information and assistance from victims for fear of lawsuits.

The new technologies and large scale markets that have proliferated since the industrial revolution have been mechanisms of new kinds of injuries on a growing and often extraordinarily large scale. The progression of coal mine accidents, collapsing bridges, railway and airplane crashes, and factory explosions forms a frightening counterpoint to industrial progress. A new legal field, "mass torts," has emerged to deal with liability stemming from public hazards, dangerous workplaces, and injurious consumer products. Some of these injuries are not only massive, they are insidious in the way they strike and are thus much harder for existing legal and regulatory institutions to deal with. In this paper we conceptualize such insidious injuries and suggest why they raise difficult issues about legal responsibility. Then we examine litigation over asbestos related injuries, especially those involving the Johns-Manville Corporation, to show how these issues arose in a concrete historical context. We relate this specific case history to the more general transformation of tort law, which is our society's main means to deter or punish injurers and compensate victims. Last, we discuss some issues underlying the formation of public policies to deal with insidious injuries.

Insidious Injuries and Legal Responsibility

Injuries are "insidious" when the links between their causes and manifest symptoms are obscure. This is particularly common where the symptoms are those of a general disease rather than a specific trauma, for example, lung cancer rather than a broken bone. Identify-

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ing such diseases as injuries is often difficult. Insidious injuries (a) appear only after a period of latency, like asbestosis and silicosis; (b) strike only a segment of the exposed population, either randomly or patterned by varying individual vulnerabilities, like diseases caused by pollution; (c) manifest themselves by raising rates of risk for diseases that also have other causes, as occupational exposure to various toxins may multiply cancer risks, and/or (d) affect victims widely dispersed through the population, like the results of faulty pharmaceutical products. Some injuries, like those stemming from exposure to asbestos dust, are insidious in all four senses.

Insidious injuries are associated with increased scale of social organization and with introduction of complex and dangerous new technologies, but they are not simply reducible to such impersonal forces. They are injuries caused by people and often by corporate "persons." For this reason, attempts to seek redress for insidious injuries fall into the province of tort law. In the United States, the absence of any national health care or universal health insurance system means that victims are often led to file tort suits simply as a way of coping with extraordinary medical costs. Litigation is, however, generally a slow and difficult means of securing compensation, which is further complicated by the pursuit of deterrence and/or punishment.

Social scientists have paid little attention to the nature and development of insidious injuries. Lawyers are more generally aware of the issues, but their work has focused more on technical matters of litigation in mass and/or insidious tort cases than on understanding the problem in its social context and considering possible responses to it. Questions about how to reduce insidious injuries and how to compensate and/or pay for the care of victims are inextricably bound up with questions about corporate versus individual responsibility, the choice of legal doctrines in tort cases, the asymmetry of corporate and individual litigants, and the appropriate role for government.

Asbestos related diseases offer an advantageous starting point for analysis of the changing nature of insidious injuries and their implications for tort law and public policy. First, asbestos related litigation combines several dimensions of insidiousness in a very large scale mass tort. Second, it raises interesting questions about what it means to treat corporations as responsible actors, both because asymmetry distorts suits between corporations and natural persons and because of the anthropomorphism of arguments that corporations ought to be punished and made to feel pain for their misdeeds. Third, largely because of the tort and bankruptcy litigation involving Johns-Manville[1], it offers a wealth of documentary evidence. A particularly interesting feature of the Manville case is the unusual strategy the firm adopted to protect its assets from the millions of dollars of claims produced by tort litigation. It sought protection in the bankruptcy courts while still clearly solvent and profitable. Manville was not the first firm to employ this defense against tort liability, but it was the first *Fortune* 500 firm to do so.

Manville's action provoked strong responses. Paul Brodeur (1986:231, 350), a widely read journalist who covered the litigation from the point of view of plaintiff lawyers, suggested that the corporation was simply using legal complexities to escape its true responsibility. One plaintiff lawyer told him that it was "the greatest corporate mass murderer in history" (quoted in Brodeur, 1986:231). *The New York Times* (1982), by contrast, published an editorial on the day after the company filed for bankruptcy protection, arguing that, "Asbestos is a tragedy, most of all for the victims and their families, but also for the companies which are being made to pay the price for decisions made long ago." Angry plaintiff lawyers wondered how anyone could worry about the companies rather than the human victims (e.g., Robert Steinberg, quoted in Brodeur, 1986:287).

Indeed, those sympathetic to the victims very commonly urged that the company be punished. It is unclear, however, whether they wished to hurt employees, current managers,

1. Hereafter referred to as Manville, in accord with its 1982 change of name.

the retired and/or deceased managers who made the decisions leading to the injury, or stockholders, which in this as in most other large companies were mostly institutions (including pension funds and others) representing people only loosely linked to the company. Expiation seemed as important as compensation to many; they would have liked to see Manville "killed."

The Manville Corporation and Asbestos Related Disease

Asbestos is a fibrous material useful primarily as a fire retardant. The resilient fibers are removed from mined rock and are flexible enough to be woven, sprayed, or packed. End-products include fireproof textiles, construction materials, brake linings, and other surfaces for coping with high friction.

Henry W. Johns pioneered commercial applications for asbestos in the late 1860s. In 1901, Johns's successors merged his firm with the Manville Covering Company, an insulation firm. The newly-formed Johns-Manville Corporation rapidly increased its annual sales to some forty million dollars by 1925. The business concentrated on asbestos roofing and pipe insulation and operated a huge asbestos mine in Quebec. By 1934, the company was manufacturing 1,400 products (most with asbestos); as of 1981, asbestos had thousands of commercial applications (U.S. Congress: House Commitee on Education and Labor [HCEL], 1981:9).

Throughout the twentieth century, Manville dominated many of its markets and expanded rapidly abroad, gaining a two-thirds share of total U.S. sales for insulation material composed partly of asbestos. Manville claimed as recently as 1982 to be the largest asbestos processor and the largest asbestos-cement manufacturer in the free world (Moody's, 1982:3995). Raw asbestos fiber, insulation, pipe, and roofing constituted the largest portion of its sales. Asbestos remained a major ingredient in most of these products even after litigation concerning its health effects was well under way; a rapid decline began in the middle 1980s (Goodwyn, 1972:12-13; Johns-Manville Annual Report, 1978 et seq.). The company has been on *Fortune* magazine's list of the 500 largest corporations in the United States from its inception and was for many years among the 200 largest. Its sales peaked at $2.2 billion in 1979, and in 1981 its assets totaled $2.3 billion.

In the early years of the asbestos industry, the mineral seemed an unalloyed good. Gradually, however, the picture darkened. Shortly after 1900, evidence began to show dangers associated with asbestos use. Mining, milling, weaving, transportation, and other uses all create asbestos dust. This dust is composed of tiny asbestos fibers that are easily inhaled by exposed individuals. The very properties that render asbestos strong and fire-retardant make it very difficult for the body's defense mechanisms to dispose of it; up to one-half of the inhaled fibers become lodged in the lungs (U.S. Congress: HCEL, 1979:49). These fibers and the body's reaction to them can result in various asbestos related diseases. The three most common are asbestosis, lung cancer, and mesothelioma. Precise specification of each disease and its relation to asbestos exposure is still a matter of some dispute.

Asbestosis is a breathing difficulty resulting from the formation of fibrous, scarlike tissue around asbestos fibers lodged in the alveolar tissue of the lung. It generally progresses over a period of 10 to 30 years. Symptoms are slow to develop, and the fibrous tissue growth can be detected by X-ray only in advanced stages. Asbestosis itself is seldom fatal, but the decreased lung efficiency it causes often contributes to fatal respiratory disease such as pneumonia or to heart failure. It has been estimated that ten percent of those working with asbestos die from these and other complications associated with asbestosis (U.S. Congress: HCEL, 1978:134). Asbestosis is dose-related; that is, lower levels of exposure produce lesser problems. Contrary to earlier belief, however, no "safe" exposure levels exist (see U.S. Congress: HCEL, 1979:51).

Lung cancer and, less often, gastro-intestinal cancer are also related to asbestos exposure. Though the statistical connection has appeared since the 1930s, the precise mechanism by

which asbestos exposure contributes to malignant formations is unclear. The coupling of cigarette smoking and asbestos exposure greatly increases cancer risks, though exposed non-smokers are also apparently at risk. In most cases, the cancer will be latent for 20 to 30 years after first exposure and upon manifestation will quickly result in the victim's death. Of those heavily exposed to asbestos dust (including factory workers and those installing asbestos products), 20 to 25 percent are estimated to die of lung cancer (U.S. Congress: HCEL, 1978:134).

Mesothelioma is a cancer of the mesothelial cells in the pleura (which lines the chest cavity) or the peritoneum (which lines the abdominal cavity). The tumor remains latent for 20 to 40 years and then quickly spreads throughout the chest or abdomen. Breathlessness and severe pain occur, vital organ function is affected, and death results very quickly. Mesothelioma occurs almost exclusively among those exposed to asbestos and was not recognized in the medical literature until the 1940s. The incidence of this cancer appears to be increasing, and it is estimated that 7 to 10 percent of heavily exposed workers die from it (U.S. Congress: HCEL, 1978:134).

Approximately eleven million people in the United States have been exposed to asbestos dust at work. Most of the intensive exposures occurred in shipyards during the Second World War. Dust exposure levels varied over time and work area in the shipyards and other places where asbestos was used. It is estimated that asbestos related diseases will claim the lives of 40 percent of the four million workers heavily exposed to asbestos dust and 15 percent of the four to seven million with less intense exposure (U.S. Congress: HCEL, 1978:135; see also Vermeulen and Berman, 1982:21). Because of the long latency periods, however, the connection between diseases and asbestos exposure was slow to be discovered, remaining both disputable in court and unclear to the general public for many years.

Corporate Responses to Asbestos Related Disease

Since awareness of asbestos related health hazards developed slowly, Manville and other firms in the asbestos industry had the opportunity to develop a four-stage strategic response.

Controlling the Spread of Information. The first phase began in the early 1930s with the initial medical evidence linking asbestos exposure to disease and lasted until conclusive independent research from Mt. Sinai School of Medicine in New York began appearing in the mid-1960s. During this period the dangers of asbestos exposure became increasingly clear to Manville executives. Their response was two-fold: to limit the dissemination of information on potential health dangers and to challenge unfavorable research findings through industry-sponsored research.

The first case of asbestosis was reported in England in 1906; subsequently, a report of this was published in a 1918 Bulletin of the U.S. Department of Labor Statistics with a call for further research (U.S. Congress: House Commitee on the Judiciary [HCJ], 1980:42). By 1930, studies in the United Kingdom had strongly suggested a link between asbestos exposure and pulmonary disease (U.S. Congress: HCEL, 1978:26, 1979:97; U.S. Congress: HCJ, 1980:42). Indeed, early studies in the United States, including those sponsored by Manville and the asbestos industry, supported the existence of such a link (U.S. Congress: HCJ, 1980:492, 493).

Executives at Manville and other industry firms interpreted adverse research findings so as to minimize their importance, arguing that the English findings did not bear on the U.S. situation and that the problem was one of "individual susceptibilities" (U.S. Congress: HCEL, 1978:152; U.S. Congress: Senate Commitee of Labor and Human Resources [SCLHR], 1980:206). In addition, they repeatedly and successfully prevented publication of those findings in the trade journal *Asbestos,* read by those in the industry as well as by users of asbestos products (e.g., U.S. Congress: HCJ, 1980:103). The company's general counsel (and later, secretary) Vandiver Brown stated in a 1935 letter to Sumner Simpson, president of the second largest asbestos producer, Raybestos Manhattan: "Our interests are best served by having asbestosis

receive the minimum of publicity" (printed in U.S. Congress: HCEL, 1978:152). Consequently, most compensation claims were settled out of court; only one suit reached the appellate level before 1970 (*Vogel v. Johns-Manville Products Corp.*, 1936).

Manville also limited the information reaching its workers as to their own physical condition. There is evidence indicating that as late as the 1960s employees were not being warned of dust dangers (U.S. Congress: HCEL, 1979:151; see also U.S. Congress: HCJ, 1980:533). Medical indications of disease were not revealed to affected workers, and even the outside physician for one Manville plant was reportedly not aware asbestos was used there until 1972 (*Johns-Manville Products Corp. v. Superior Court*, 1980; U.S. Congress: HCEL, 1979:151; U.S. Congress: HCJ, 1980:508-10, 533, 538; Berman, 1978:3).

Company executives realized as early as the 1930s that minimizing public awareness of the hazards of asbestos exposure was an inadequate strategy by itself, given the steadily increasing flow of non-industry research (notably Hueper, 1956, printed in U.S. Congress: HCEL, 1979:153). Manville began to sponsor its own research in 1928 with a small study using only non-human subjects and examining only possible links to cancer (i.e., not to asbestosis). The explicit aim of the industry-sponsored research was to provide scientific evidence to combat the negative non-industry findings as well as to defend against workers' compensation claims and tort suits (Brown, 1934; Hobart, 1934). In 1936, Brown and Simpson proposed a joint research program to an industry group which they dominated. As Simpson (1936) wrote,

> We could determine from time to time after the findings are made whether we wish any publication or not. My own idea is that it would be a good thing to distribute the information among the medical fraternity, providing it is of the right type and would not injure our companies.

The resulting research agreement with the Saranac Laboratories in New York State stipulated that the funders:

> will determine whether, to what extent and in what manner they [results] should be made public. In the event it is deemed desirable that the results be made public, the manuscript of your study will be submitted to us for approval prior to publication (quoted in Brown, 1939).

The medical professionals involved were clearly willing to cooperate with the asbestos industry. Funding requests by these professionals to asbestos trade associations in the 1950s suggested that research be undertaken to defend against claims or to counter negative non-industry studies. In 1955, for example, the Saranac director requested funds from an industry trade association, suggesting the relationship between asbestos and cancer be studied in animals in order to provide facts "to combat unjust compensation claims" (*Dishner v. Johns-Manville Corp.*, 1978:850). The next year, Manville's medical director recommended that the association fund a study on the cancer link "in order that we could procure information which would combat current derogatory literature now being circulated throughout the United States and Canada" (quoted from U.S. Congress: HCEL, 1979:153). Results of industry-sponsored research were submitted to Manville and other firms for review and withheld from publication if they did not satisfactorily advance these goals (e.g., U.S. Congress: HCJ, 1980:52-53). Moreover, the results that were published were sometimes carefully misleading. For example, studies published in the 1950s emphasized that *asbestosis* did not cause cancer. This obscured the very real relationship found between the substance asbestos and cancer (U.S. Congress: HCJ, 1980:52, 53; Smith, 1955:202-03).

By the mid-1960s, managing information was no longer a viable strategy. Many of those exposed to asbestos in the past were manifesting disease. Most importantly, research first published in 1964, principally by Dr. Irving Selikoff of the Mt. Sinai School of Medicine, clearly established the widespread and long-term danger of asbestos exposure (e.g., Selikoff et al., 1964). Manville was forced to deal with this public knowledge, reversing in 1964 its long-standing policy against attaching health warnings to its asbestos products. Moreover, union concern for health and safety issues increased, combining with the new scientific evidence to

dramatically increase the number and size of compensation claims. Selikoff joined the unions in lobbying for federal dust regulations, and the 1972 standards were among the first to be established under the Occupational Safety and Health Act (Brodeur, 1973:29-31; Ashford, 1976:5-6).

Confronting the Litigation Explosion. The second phase in Manville's response was to confront the explosion of asbestos related litigation. In 1973, an appellate court first held that asbestos manufacturers could be liable to those using asbestos products for failing to warn of or test for dangers that were reasonably foreseeable (*Borel v. Fibreboard Paper Products,* 1973). This touched off an avalanche of product liability suits. Manville, as the major manufacturer, was named as a defendant in perhaps 13,000 of 20,000 suits industry-wide between 1968 and 1982 (Lublin, 1982; Johns-Manville Debtor's Petition, 1982), although fewer than one hundred reached the trial stage.

By the late 1970s, these suits had become a significant financial threat. In 1976, 159 new lawsuits were filed against the corporation; in 1978, the number reached 792. Crucially, in 1977, a plaintiff attorney discovered the existence of the "Sumner Simpson Papers" (several of which are cited above), which included correspondence among industry executives from as far back as the 1930s coordinating action to limit the spread of information concerning the health hazards of asbestos products and production processes. These letters undermined Manville's argument that there was insufficient medical evidence of health dangers until 1964 to warrant warnings and testing beyond what was done. The tide turned against the company; jury awards ran as high as $750,000 (Soloman, 1979:198), and legal costs mounted. Nonetheless, Manville continued to fight every case vigorously, exhausting every legal option open to it—an approach that plaintiff attorneys regarded as stalling and attempting to fight not on the merit of cases but on relative financial capacity to continue litigation.

Perhaps the most critical threat to the firm came in 1976 when Manville's insurers refused to renew their policies, claiming they were unable to estimate future liability expenses adequately to arrive at an appropriate fee (see U.S. Congress: HCJ, 1980:59, 1982:208). Manville was forced into self-insurance. This not only removed its buffer against liability payments, it made the company immediately responsible for all defense costs. Insurance and asbestos companies entered into litigation to determine whether an asbestos "injury" arose at initial exposure to asbestos (rendering those insuring Manville in the 1930s and 1940s liable) or at manifestation of disease (rendering those insuring at time of manifestation liable). No court decision was forthcoming until 1980; in the late 1970s, the company faced the possibility that a manifestation theory would be accepted, which would leave it liable as self-insurer for all diseases manifested after 1976, and thus for the majority of claims.

Impending Disaster and Protective Legislation. In the third phase of its response to the developing awareness of the health hazards of asbestos, the company sought relief from its severe immediate and long-term problems by helping to draft federal legislation that would create a fund for the settlement of claims from victims of asbestos related disease. Representative Millicent Fenwick of New Jersey sponsored the 1977 Asbestos Health Hazards Compensation Act (H.R. 2740), and Senator Gary Hart of Colorado sponsored its 1980 successor (S. 2847). Manville was a principal drafter of both these bills, as Fenwick and Hart readily acknowledged (U.S. Congress: HCEL, 1979:2; U.S. Congress: SCLHR, 1980:172). Neither bill reached the legislative floor. Manville viewed them as legitimate efforts to share the burden created by changing social standards as to what constitutes reasonable business practices as well as changing medical knowledge about the dangers of asbestos. To many critics, however, including legislators, the bills were mere attempts to avoid responsibility for the costs of past corporate practices.

Manville and other supporters of the compensation bills argued that workers' compensation programs and product liability litigation were inadequate to compensate victims. They

attempted to show that victims sued manufacturers of products they had used rather than their employers because workers' compensation benefited only a fraction of those with legitimate claims and provided severely limited benefits even in those few cases (U.S. Congress: SCLHR, 1980:169, 207, 227). They similarly faulted tort litigation for failing to provide adequate compensation for victims (U.S. Congress: SCLHR, 1980:205). Since legal expenses (including attorneys fees and court costs) exceeded the compensation received by victims by 66 percent, litigation seemed to them an ineffective and inefficient means of providing compensation (U.S. Congress: HCEL, 1982:202; Kakalik et al., 1983, 1984; see also *Harvard Law Review,* 1980).

The Fenwick and Hart bills similarly called for standardized payments to confirmed victims of asbestos related disease. Each contained a clause prohibiting all persons eligible for compensation under the proposed statute from bringing suits against employers, manufacturers, insurers, unions, or the government; in other words, the bills proposed to create an exclusive remedy. Each bill provided for some means by which payments would be rendered predictable as well as adequate. This predictability was crucial; it would allow the company to plan its business activities with some clear notion of future liabilities and probably allow it to reinsure itself.

The Fenwick bill proposed to provide compensation by means of a federally administered fund; companies would pay in a fixed percentage of their sales from fifteen years before. Under the Hart bill, payments would be made by companies into state administered workers' compensation programs in amounts corresponding to nationally standardized "percentage rates of liability" for current and expected future claims. The Fenwick bill would have been preferable for Manville because past sales are a more certain indicator of liability than future claims, but each would have provided the needed level of predictability.

Under the Fenwick bill, Manville had no incentive to reduce asbestos dust levels because the corporation's financial contribution to victims would be based directly on its level of sales, not its workers' health. Similarly, under the Hart bill, firms would pay a percentage of total liability which, though not necessarily based on market share, would at least provide for insurance at something close to an industry-wide rate.

Each bill included an attempt to make tobacco companies share some of the cost of asbestos related disease, primarily on the basis of research showing that cigarette smoking greatly increases the risk of lung cancer for those exposed to asbestos. However, the proposals evaded two key issues. First, were tobacco companies responsible for workers' smoking (an individual choice) in the same sense in which asbestos companies were responsible for spreading asbestos dust? Second, should the asbestos industry share in this liability because it had systematically minimized the chances that workers had to find out about the combined risks of asbestos exposure and smoking?

Finally, the bills sought to have the federal government contribute to the compensation fund. About one-half of all workers occupationally exposed in any intense way to asbestos dust worked in shipyards owned or controlled by the government, especially during the Second World War (Hart, 1983). The government, moreover, had done some early research and failed to do much to implement recommendations that greater precautions be taken (U.S. Congress: HCEL, 1978:38-39). The government would acknowledge liability only for victims directly employed at federal facilities, that is, not for employees of contractors. In the absence of any relevant court decisions, the extent of government liability remained unclear.

Bankruptcy. Manville's failure to secure financial protection by legislation forced the corporation to try a final and more drastic action. In August 1982, the company filed for protection from its creditors while it reorganized under Chapter 11 of the Federal Bankruptcy Code. At about the same time, the company changed its name from Johns-Manville to the Manville Corporation in an attempt to symbolically distance the corporate identity from the asbestos litigation. This was newsworthy because it was a highly unusual move for a company far

from bankrupt in current account terms. In December 1981, as noted, Manville's assets totaled $2.3 billion.

Filing for protection under bankruptcy statutes was an extreme measure but, at least in the short term, an effective one. It immediately froze action on all creditors' claims, including pending and future tort claims. The corporation's longer-term goal was to keep its main operating assets from possible seizure to pay claim settlements. The bankruptcy proceeding, in short, saved the corporation from more or less rapid dissolution as litigation costs and settlements cut increasingly into capital. It was not a painless solution, however, and Manville chose it pretty much as a last resort.

By 1981 the company faced prosecution in some 9,300 cases brought by 12,800 separate plaintiffs. The average award was $16,000 per claim. Total costs were more than twice that, however, as defense costs reached the level of $23,400 per claim (Johns-Manville Debtor's Petition, 1982:5, 6; see also Kakalik et al., 1983, 1984). Moreover, the award ceiling kept rising. In 1981, a Los Angeles County jury awarded a plaintiff $1.2 million in compensatory damages alone (U.S. Congress: HCEL, 1982:204). Much more importantly, in 1981 Manville was first found liable for punitive damages at the trial court level. If the awards were upheld on appeal, Manville would be responsible for full payment no matter when the injury took place because punitive damages generally are not insurable (Stone, 1975:56; though this question is often litigated).

For somewhat more technical legal reasons, four judicial decisions between 1980 and 1982 also added greatly to the uncertainty of Manville's future. First, the *Flatt v. Johns-Manville Sales Corp.* (1980) decision used the *Borel* case to bar Manville from denying liability when a diseased plaintiff established Manville's asbestos as the source of exposure. A second case, *Johns-Manville Products Corp. v. Superior Court* (1980), found that a California workers' compensation law barred suit only for the initial injury sustained in an occupational setting. The court ruled that an employee could recover for subsequent aggravation of injury occurring due to employer's fraudulent concealment of the employee's condition and its cause. A third case, *White v. Johns-Manville Corp.* (1981), established that seamen and shipyard workers may file claims under admiralty law, thus avoiding state statutes of limitations. Finally, in *Beshada v. Johns-Manville Products Corp.* (1982), strict liability was imposed and state-of-the-art defense tactics were barred.

These four decisions effectively meant that Manville would face more suits with less ability to defend itself. To make disaster complete, by 1982 there were four appellate rulings on the insurance issue; only one would force the corporation's insurers to assume the full cost of litigation and settlements even for early disease claims.[2] The overall result of the conflicting rulings was that insurance companies generally refused to make any payments in asbestos cases, asserting the theory they found most advantageous and inviting litigation (see *Harvard Law Review,* 1984). Manville brought suit against 27 insurance companies but until resolution of the matter was forced to bear all litigation costs itself (Metz, 1982).

Use of the bankruptcy proceeding as a defense was made possible in part by 1978 reforms in the Federal Bankruptcy Code. The new code provides that a reorganization plan may include estimated future liabilities, rather than only considering liabilities already outstanding (11 U.S.C. Sec. 101[4], 1982; 11 U.S.C. Sec. 1123, 1982). Moreover, the new code omitted its predecessor's explicit injunction against the "bad faith" use of the law for inappropriate ends—i.e., simply to evade creditors or litigants (11 U.S.C. Sec. 546, 1977; 11 U.S.C. Table 1, 1982 [Sec. 546 repealed]; see also Gaffney, 1980:210). Prior to 1978, under the good faith requirement, a company would have been required to demonstrate that the court's aid was necessary to regain solvency, not merely financially helpful (Cater, 1982:2029). Chapter 11 of

2. These four cases are: *Insurance Company of North America v. Forty-Eight Insulations,* 1980; *Porter v. American Optical Corp.,* 1981; *Keene v. Insurance Company of North America,* 1981; *Eagle-Picher v. Liberty Mutual,* 1982.

the Bankruptcy Reform Act of 1978, by contrast, pointedly does not require that a debtor be insolvent before filing for reorganization.

The question of when the financial burden of a debtor is sufficiently heavy to legitimate filing for reorganization is an open one. Plaintiff's attorneys asked the bankruptcy court to set aside Manville's petition for reorganization on grounds of "abusing" the bankruptcy process, in effect asking the court to treat the good faith requirement as implicit and regard the company's filing as in bad faith (Lewin, 1982). Their appeal was rejected and Manville was allowed to proceed with reorganization. In the words of U.S. Bankruptcy Judge Lifland, "Manville must not be required to wait until its economic picture has deteriorated beyond salvation to file for reorganization" (Lewin, 1984). Roe (1984:848) has argued at length and on varied grounds that "when future claims are large in relation to firm value there should be an early reorganization that resolves those claims" (see also Jackson, 1986:47-54).

Through reorganization Manville will achieve two key goals: predictable costs and protection of sufficient operating capital. The appointed representative of future claimants joined with attorneys representing current claimants (both victims and commercial creditors) in negotiating a single comprehensive settlement, though some future litigation of the issue of comprehensiveness seems likely. The advance settlement does shield the corporation from further future direct liability. It does so, however, by transferring majority ownership of the company to a trust designed to fund and manage such liability. Protection of the corporation against future liability has taken place only through a fundamental restructuring of corporate ownership. Nonetheless, Manville is being provided with an estimate of the maximum amount of all present and future asbestos health claims, on which basis it can presumably purchase insurance to cover such claims (or otherwise amortize them over an extended period). Punitive damage awards may also be ended by this compensation scheme. While crucial gains for the corporation, they have not been painless for management nor are they likely to please equity investors. In sum, the court required Manville to adopt a much more costly plan than the firm originally proposed.

The court held that epidemiological and other statistical indicators should be the basis for determining the potential total liability and that Manville should provide for most of this liability immediately rather than gradually as cases mature. Claims are to be evaluated by medical experts and adjusted up or down from court-determined standards. The trust is expected to pay out $2.5 to $3 billion. It will be funded by insurance proceeds estimated at $615 million, a bond issue for $1.8 billion, $200 million in cash, 20 percent of future profits (starting four years after emergence from bankruptcy), and 72 million shares of Manville common stock. With the trust comes an immediate 94 percent dilution in the value of common stock, to be accomplished through a reverse stock split and issuance of new shares. Eleven million of these new shares will be transferred to commercial creditors to compensate them for lost interest on their loans. The largest proportion (from 50 to 80 percent of total Manville common stock) will go to the victims' trust. The stock transferred to the trust will have voting rights only after four years. At that point, however, the trust will become the majority owner of Manville. The company itself will be immune from further suits over asbestos related disease, but claimants dissatisfied with proposed settlements could sue the trust. The trust, to be administered by a court-approved board of trustees, will remain in operation as long as claims are filed.

Manville potentially is liable not only for health related claims, but for property damage claims filed by the owners of buildings from which asbestos must be removed. The reorganization agreement sets aside $125 million in a separate trust to pay property damage claims; this trust will also receive any insurance payments over the $615 million allocated to disease victims and any part of the 20 percent of profits paid to the victims' trust that the trust does not need (Lewin, 1986).

The court officially accepted Manville's reorganization proposal on December 18, 1986. Though various legal challenges were mounted (notably by lawyers for one group of victims

and by a common stockholders group), they met with little success (Mitchell, 1986). The company indicated that it expects to emerge from bankruptcy protection in early 1988 (*Wall Street Journal,* 1987).

For over 30 years, Manville executives resisted many paths of action that might have prevented or alleviated the suffering of the victims of asbestos related diseases. Because the diseases have long latency periods, the impact of these corporate decisions continued well beyond that 30-year period. It is important to note that since the mid-1960s, no decisions with regard to ordinary company operations could have undone the bulk of the damage for which the corporation now faces liability. Any change in operating procedures, such as the phasing out of asbestos use or the adoption of higher safety standards, could only have reduced the incidence of disease years in the future.

The most important point is not that Manville or its executives were distinctively bad, but that the scale of the company's operations and the danger of its products made the bad actions of its executives distinctively efficacious. The case history indicates that the increasing size, complexity, and impact of corporate actors, and the resulting rise of new and widespread injuries, pose fundamental challenges to the legal system and, particularly, tort law.

Tort Law and Corporate Responsibility

Part of the interest in the cases of asbestos related diseases is that they bring to the fore a competition between admonitory and compensatory uses of tort law. Modern tort law has taken shape over the past two hundred years largely as a private law analog to criminal law, holding individuals accountable for injuries they could reasonably have been expected to foresee. The English common law had allowed tort claims only under fairly narrow criteria of willful injury and forms of strict liability where certain injuries demanded compensation regardless of their causes or even their avoidability. The right to do certain forms of business thus entailed the responsibility for certain forms of injury.

Modern tort law, however, has relied increasingly on the concept of negligence, or failure to take due precautions. These changes were driven in part by the requirements of expanding commerce, especially the need simultaneously to encourage firms to provide public amenities and consumer goods and to admonish them to do so carefully. Negligence defined the nature of the wrong and the rights of victims to legal remedies, but it focused on the underlying fault that made defendants blameworthy. Punishment was intended to admonish and/or deter. Negligence was gradually stretched to provide for compensation in cases where its determination was not always obvious. However appropriate to direct, immediate, and obvious injuries, the negligence doctrine was challenged by injuries remote in time or space or whose manifestations were mediated by statistical chance in large populations.

The negligence doctrine was stretched because jurists wanted to see innocent victims compensated. This was partly a simple change in attitudes as egalitarian ideas of justice gained support. It was partly due to growing reliance on the law as substitute for more personal relationships and for welfare institutions to care for those who suffered. Tort law remains a branch of private law, but increasingly it is used to decide cases similar to those of public law, intimately concerned with matters of general public welfare (Calabresi and Bobbitt, 1978; Calabresi, 1985). These changes in tort law and tort decisions were also driven by material changes in social and economic arrangements.

Tort law was not developed to deal with contractual arrangements, family life, or other established relationships. Rather, it focused on injurious contacts among parties with no prior legal relationship (Friedman, 1973:261-64, 409-27; Horowitz, 1977:85-99; White, 1980). Earlier, injuries and accidents took place primarily in direct, face-to-face contacts. Who the parties were was usually readily evident; often they knew each other. As the scale of social organization grew, and new technologies were introduced, "personal injuries" became less

personal. More and more social and economic relationships were indirect, mediated by markets, communication technology, and complex organizations. Injuries came before the courts that were very difficult to trace back to individual actions or events. Technological and social changes thus contributed to innumerable hard cases which led jurists and scholars to stretch the doctrine of negligence or suggest its abandonment in favor of strict liability. One problem was establishing the causal agency and thus responsibility for injuries where such actions were taken by or on behalf of complex organizations. Another was how to apportion liability among firms supplying a market for dangerous products when it could not be established which firm's products caused which specific injury (Thompson, 1986: chs. 12, 13).

Tort lawyers and judges also faced more cases in which causation was remote and/or probabilistic. Many insidious injuries, including those related to asbestos exposure, come from actions that affect the statistical distribution of risk rather than from actions that directly cause such injury or disease. A key stumbling block in contemporary insidious injury cases is the difficulty of establishing how much knowledge different parties may reasonably be expected to have about remote and probabilistic causes. From the victim's perspective, it is often difficult both to know the nature and source of one's own injury and to identify other victims. While the perpetrators of such torts are in a better position to understand these causal links, they are not always apparent even to them.

The older tradition of tort law focused on admonishment, with linked subsidiary goals of punishment and deterrence. Prior to 1900, compensation was a consequence of successful tort action, but the major legal purpose was to punish or deter blameworthy conduct (White, 1980:62). Today, tort law focuses more on compensation or restitution than on punishment or retribution. Nonetheless, the two goals coexist, each organizing different areas of tort law (or life), and on occasion competing and sometimes informing and bolstering each other:

> Compensation became a primary concern in products liability cases in the 1970s. An admonitory view of the function of tort law assumed that there was nothing unjust about the costs of injuries being borne by injured parties themselves unless the injurer had done something blameworthy. The injustice of no compensation for tort victims lay in the fact that blameworthy injurers were not admonished rather than that injured people were not being compensated. Once the situations where a blameworthy (contributorily negligent) person was deprived of compensation for his injuries came to be regarded as "unjust," a new primary purpose for tort law could be assumed. "Injustice" could not be equated with the absence of compensation for injuries rather than with the failure to admonish blameworthy conduct (White, 1980:164-65).

Tort law seems to be coming full circle in at least one sense: from a preponderance of strict liability to a focus on the doctrine of negligence to what appears to be the introduction of a new version of strict liability (White, 1980; Steiner, 1987). The first shift was accomplished largely by introducing the principle that all citizens owe a duty of care in any of their actions that might affect others; negligence was the failure to exercise this universally required care. The second shift stems centrally from making compensation the primary goal of tort law. It rests on the notion that those who share even to a limited extent in responsibility for an injury should be required to make amends.

A crucial further support for this second shift has been jurists' conviction that insurance was an effective means of distributing the costs of routine risks across a large population. In the influential first edition of his famous text on torts, for example, Prosser (1941:689; see also White, 1980:197-207) argued that the producer was "best able to distribute the risk to the general public by means of prices and insurance." According to this prominent theory of tort law, insurance was a means to allow risky but socially desirable ventures to be undertaken. If such ventures occasionally produce accidents, these costs should not be borne fully by individual victims. Moreover, such costs should be borne by all those venturers who created *risks,* not just by those whose activities produced the actual injury. Just as automobile insurance spread the costs of accidents (some rate of which is an unavoidable by-product of automobile

transportation) among all drivers, so product liability insurance was to spread the costs of occasional unforeseen injuries among the wide range of businesses creating consumer products. Insurance also provided a means for individual firms to spread liability across time, making it a predictable cost.

The Corporation as Defendant

Insurance made the compensatory focus of modern tort law possible; the large corporation made it especially important. First, large corporations helped to transform the scale of social organization. Single production facilities grew to employ thousands of people, single companies hundreds of thousands. Organizational and technological complexities helped to make accidents likely; structural rigidity in bureaucratic hierarchies often inhibited efforts to prevent them (Sherman, 1978; Clinard, 1983; Ermann and Lundman, 1987). The very scale of operations in any case was such that even seemingly low probabilities of accidents might produce large absolute numbers of injuries; it was necessary to think in terms of statistical risk rather than only particular cases (Perrow, 1984; Huber, 1985). As the NASA space shuttle disaster recently showed, public bureaucracies can have problems similar to those of private industry.

Beyond this, the corporate form of organization created a basic asymmetry between the two sorts of "persons" who faced each other in litigation. On the one hand were the "natural persons" and on the other were legally created corporations. Each sort of person had the same basic status in tort litigation, but strict liability doctrine came to be invoked to secure compensation precisely when "the typical tort claim arose out of an interaction between persons with unequal power, no previous contractual relations or customary dealings, and imperfect information about risks" (White, 1980:219). Coleman (1982) treats such extreme disparities in wealth, power, and longevity between corporations and human individuals as a defining characteristic of modern society. They also create obvious problems for natural persons who must challenge large corporations in the courts.

One of the crucial ways in which corporations and individuals are asymmetrical is in their ability to control and/or gain access to information. In the asbestos related cases, individuals faced difficulties in finding out about the nature and causation of injuries done to them and in pursuing legal remedies (Schroeder and Shapiro, 1984). Even without the sort of manipulation and bad faith practiced by Manville executives, individuals are unlikely to be able to gather sufficient knowledge to inform their own decision-making adequately without creating still other large-scale collective actors. Unions and "disinterested" medical research organizations were thus instrumental in bringing an effective challenge to Manville's practices. Potential victims of asbestos related diseases are widely dispersed and knit together only loosely. In the ordinary course of events, information—to the extent it is available at all—will spread only slowly and unevenly among potential victims (see Stone, 1975: ch. 18). The exposed population has little social organization through which to undertake collective action.

Even when individuals learn of the possible consequences of exposure, they face substantial costs in any effort to challenge the corporation. They may succeed in obtaining counsel from attorneys willing to take their cases on a contingency basis (something that is easy to do only after a fairly considerable momentum has built up), but they are unlikely to be able to match the financial resources a large corporation can use in litigation. Plaintiff lawyers do have a certain interest in taking on some early cases they will likely lose, because this enables them to prepare better for (and advertise their availability for) eventual winning cases. Nonetheless, plaintiffs are at a disadvantage, especially in the early years of litigation. In the Manville cases it took decades of preparation and trial work before the tide turned in favor of plaintiffs. Moreover, the legal system allows defendants almost unlimited opportunities to increase the costs of the proceedings for their opponents, while it simultaneously restricts the

interests of plaintiffs' attorneys in their own work (Rosenberg, 1984:904-05; see Galanter, 1975, on the advantages of corporations in such litigation).

Individuals also face difficulties in gathering and analyzing information. Major personal injury cases can involve millions of documents and computerized records: statistics on production, distribution and use of hazardous substances, statistics on the health of thousands of workers, testimony or written evidence from hundreds of sources. Gathering such information requires substantial resources and/or enormous time and dedication. A RAND Corporation study indicates that between the early 1970s and the Manville bankruptcy filing in August 1982, the industry and its insurers had spent $606 million to defend asbestos related cases; plaintiffs' litigation expenses amounted to $164 million (Kakalik et al., 1983:39; net compensation was $236 million with some cases still pending).

Longevity is another relevant asymmetry between corporations and individuals. Individual life spans are limited while corporations may "live" indefinitely. A corporation may choose to drag litigation on for years, regarding the additional legal costs it pays as negligible compared to its potential liability. Its liability, after all, must be understood not in terms of the single case but as magnified by the thousands of others to which it might lead (Galanter, 1975). Corporate executives, moreover, have little incentive to see a potentially expensive case settled during their tenure of office. Since corporate executives often move from one position to another within a company, or among firms, this can be a major issue. No official wants the extraordinary costs of a disadvantageous settlement to threaten his reputation. Each would rather leave the case pending, as he found it (see Stone, 1980; Roe, 1984:9-10). This is an issue of particular force in the case of long-latent diseases. In the Manville case, no senior actors in the original plan of concealment and manipulation of information are alive to face the consequences of their actions.

This bears on one major argument about how to make corporations more responsible. Simply fining corporations and/or making them pay damages to victims does not produce the intended deterrent effect, this argument goes, because such expenses do not translate into direct financial liability for the individuals who made the blameworthy decisions. Critics of corporations have generally viewed corporate status as a shield illegitimately deflecting punishment from culpable individuals and simultaneously depriving deserving victims of compensation (Nader and Green, 1973; Nader, Green, and Seligman, 1976). Many have called for a legal apparatus (e.g., for Nader, a charter) that affirms the right of government to reach inside the corporations to enforce its own standards of good behavior.

Some defenders of corporations have claimed that they should be exempt from this level of government interference because they are essentially creatures of private contract rather than public concession (Hessen, 1979). In this view, the corporation is neither an entity in itself nor a legal fiction in the sense of Justice Marshall's classic description (in *Dartmouth v. Woodward*) of "an artificial being, invisible, intangible, and existing only in contemplation of law." Ironically, this "defense" of corporations harbors serious dangers for them. If the corporation is merely a private association of its members (by which is usually meant its shareholders), then doctrines of limited liability must be called into serious doubt. Either individual employees would be liable (perhaps following some version of the old common law of master and servant) or individual owners would be fully liable, that is, liable to the extent of their assets rather than merely the amount of their initial investment. Yet the modern large company presumably depends on limited liability for its shareholders, if not perhaps for its executives (see Orhnial, 1982).

Corporate charters might be used to build a variety of requirements into the very constitution of corporations. Nader's proposal to use them to reach inside to bring legal action against individuals has little bearing on cases of injuries involving long-latency periods, however, though pressing tort and/or criminal charges against corporate officers may be efficacious in some other cases. Charters might, however, be used to promote corporate social responsibility through internal structural reforms and to produce a more ethical corporate

culture (Stone, 1975; Ackerman, 1975). The insidious injury cases lend some support to this idea. Charter provisions could be designed to promote structures that encourage corporations to monitor product and process safety and issue early warnings of potential dangers. But any such provisions would in many ways run counter to the tendency of the tort law to encourage corporations to treat all such information as a potential legal risk and thus minimize both its collection and its dissemination. Of course, it may be desirable that high moral standards rather than minimum criteria of legal acceptability be the goal for managerial (as for all other) behavior.

Punishment vs. Compensation

Whatever the desirability of such reform efforts, they are not likely to be the direct product of tort litigation against corporations. In insidious injuries cases, tort law is best suited to providing compensation to victims. What place, we now need to ask, is left for punishment?

Deciding that compensation should be provided to victims still leaves the question of who should pay? Conventional notions of justice would have blameworthy parties pay. In other words, payment would punish those who have caused injuries; publicizing this punishment would deter others. The Manville case, however, suggests that considerable complexities challenge attempts to apply this simple principle in concrete cases. Focusing solely on the company's blameworthiness leads some to propose dissolving it, thus limiting funds available to compensate future claimants.

Clearly, since the pursuit of profit produces the risk, it seems reasonable to argue that even the least blameworthy corporation is the appropriate source of compensation. It is one-sided for the *New York Times* (1982) to describe asbestos related diseases as a tragedy for "the companies, which are being made to pay the price for decisions made long ago." But those who speak of making the company "suffer" should be pressed to make clear what this means. A company is not a sensory agent capable of "feeling" punishment; any presumed punishment of a corporation must translate into the bad feelings of some set of individuals, whether owners, managers, or other employees. Even though investors might reasonably be held voluntarily to assume the risks associated with financial problems such as those now confronting Manville, punishing them would seem to be plausible primarily as an expiatory ritual, not as a deterrent or source of compensation. At best, the prospect of such "punishment" might encourage future investors to impose demands for clear information as to the "good practices" of firms, that is, to ask for a social audit or certification of due care to minimize actionable injuries. It is not clear that very many investors could conceivably enforce such demands unless they were aided by public monitoring and sanctions for failure to comply. The public information which Manville provided right up to the time of the bankruptcy filing was certainly misleading, though apparently not to the point of illegal misrepresentation.

Indeed, insisting on using tort law to effect "punishments" of corporations might lead officers to further restrict or distort information and to resist prompt and just settlement of tort claims. This may include keeping certain top executives ignorant of such information so that they can honestly claim not to know of their own firm's practices or their consequences. "Digging in" of managerial heels is a major problem to be considered in any attempt to deal with insidious injuries. Businesses themselves will be in the best position to detect early signs of insidious diseases. Some form of government regulation may be required to get them to act positively on their knowledge.

There is good reason to think that corporations, unlike individual criminals, will discriminate effectively among severe penalties (see Clinard and Yeager, 1980; Ermann and Lundman, 1982); for instance, between dissolution and large financial costs. As Rosenberg (1984:855) has pointed out, "mass exposure" torts such as the ones at issue in asbestos litigation are "frequently products of the deliberate policies of businesses that tailor safety investments to profit margins." In principle, this should make threats of liability more effective in reducing corpo-

rate negligence. The key is for the liability to appear large enough to deter without being so large as to produce strategies of legal delay or manipulation of information.

For corporations confronted with massive tort liability, predictability of costs and hence the possibility of effective strategic planning is crucial. For corporate officers faced with mounting tort claims over long-latent diseases, the availability of a well-managed and eventually more predictable bankruptcy proceeding might provide a more palatable course of action than fighting on and risking dissolution. At that point, executives can no longer solve the corporation's problems by changing corporate practices; they can only choose strategically among responses to the corporation's legal liability.

In the Manville case, bankruptcy makes sense when considered as part of an effort to secure compensation to victims, even though some critics argue that it impeded punishment of Manville and deterrence of future tortfeasors. Punishment and incentives for prevention were sacrificed to the achievement of compensation. Even under a negligence standard individuals had great difficulty getting a large corporation like Manville to redress (or even address) the wrongs it created; liability in individuals' suits was too ineffective to be considered a significant deterrent.

Making compensation the primary pursuit of the courts simply gives up the notion that tort law should seek to induce either corporate or individual responsibility. As both Posner (1973:214) and White (1980:235) point out, strict liability doctrines also remove some of the incentives for consumers to use products carefully, though possible financial compensation seems unlikely to make individual consumers extraordinarily careless. Whether there is any mechanism to translate potential costs into motivation for good actions is even more doubtful than in comparable cases decided on a "pure" negligence standard. The Manville case presents problems, thus, for an economic theory of tort law such as Posner's (1972) with its contention that proceedings in terms of negligence will effectively motivate prevention as well as punish wrong-doing and compensate victims. Manville's bankruptcy settlement may give pause to other corporate managers considering such a defense against tort liability. But nothing in the tort litigation itself suggests that such managers, in a situation similar to Manville's, would be poorly advised (on solely economic grounds) to hide the problem as long as possible and then fight all lawsuits vigorously. If compensation is the goal, the problems are to find and distribute funds. Corporations, their insurers, and/or the government must establish a fund; and the claims of current victims must be balanced against the rights of expected future claimants. Insurance ordinarily accomplishes this. The possibility of losing insurance coverage in cases of long-latent disease shifts the burden back to the producer and victim with a minimal actuarial buffer. As in the Manville case, private insurers will often prudently refuse protection even where businesses still operate. Where long-latent disease is at issue the law is unclear as to which insurers are liable and in what proportions (see also *Indiana Law Review,* 1982; *Harvard Law Review,* 1984). Until the law is clear, victims bear most of the burden of delayed compensation. Any attempt to "punish" the corporation by, for instance, liquidating its assets and dissolving it, will likely benefit current claimants and commercial creditors. This will be at the expense of future sufferers of asbestos related disease, as well as of management, employees, and possible investors.

A government-subsidized fund was one possibility to avoid this sort of fix in the asbestos cases. Manville and other firms only grudgingly gave up hope for this option. Those who hold that punishment and not merely compensation must be a central goal resisted such a scheme. Such resistance was reinforced by the fact that the legislative plans put forward were grossly favorable to the company. In most imaginable cases, an "after-the-fact" legislative solution would involve either shifting a large part of the burden to the general taxpaying public or developing an almost unprecedented mechanism for close government involvement in the running of a "private" business (though see discussion in *Texas Law Review,* 1983).

Failing insurance and government backing, the corporation itself becomes the best source of funds for compensation. Where only moderate amounts are at issue, it may be possible for

corporations to handle such claims as self-insurers. Where amounts are much larger, some form of legally enforced protection and reorganization may be essential to secure compensation and to save the company. Bankruptcy reorganization may be the only effective procedure available to balance the claims of future claimants against current ones, and the only means of providing a sufficiently large source of funds to meet the claims of all. It should not be thought that the bankruptcy reorganization necessarily will lead to any very different form of corporate management. The trustees will be bound by a fiduciary responsibility to victims and other creditors much like what boards of directors ordinarily have towards stockholders. Presumably this will be interpreted in the same predominantly financial terms of prudent judgment, namely, a fairly narrow seeking of profit and perhaps growth by means of standard business practices. There is little in our knowledge of corporate boards to suggest that trustees acting by similar standards would implement dramatically new management practices (Herman, 1981).

Discussion

Corporations have both caused insidious injuries and impeded individual and collective efforts to cope with them. At the same time, corporations may also be the only social actors able to compensate their victims. If the corporation did not endure and remain viable, there would often be no one to sue in a case of long-latent disease. There would be no "deep pocket" against which to make legal claims. The only remaining option would be a government-backed compensation scheme.

Similarly, just as individuals are shorter-lived than corporations, small firms are shorter-lived than large ones. Though Manville was the perpetrator (or at least the mechanism) of a large evil, its very size made it a practical source of compensation. The very corporate form and the particular size and power of Manville indeed allowed it and its agents to avoid responsibility for many actions over a long period of time. The structural asymmetry between Manville and those it wronged did contribute to the perpetuation and extension of the wrong. Ironically, however, that same asymmetry helps to provide an effective means of funding those very claims that the corporation ultimately was unable to deflect.

This irony does not rest well with everyone. Brodeur (1986:350) would rather rely more exclusively on tort litigation and see a more punitive justice: "The asbestos litigation was a triumph of justice which is now being betrayed by the thickets of the Bankruptcy Code." Many plaintiff lawyers agreed, at least initially, and they rankled at the suggestions that the tort system "failed," became "clogged" or operated so as best to serve greedy attorneys. Representatives of the asbestos industry have helped to promote such a view, but they have been joined by some powerful shapers of public opinion, including editorial writers for the *New York Times* (1982), *Wall Street Journal* (1985a), and the then chief justice of the United States (see *Wall Street Journal,* 1985b). The argument is primarily that tort litigation is inefficient and expensive. It also results in a variety of inequities which a uniform claims facility might minimize. While these arguments have some merit, proponents tend to forget the crucial role played by tort litigation in getting Manville to face any responsibility or pay any compensation for its role in the occurrence of asbestos related disease.

But, as we have seen, to praise tort law as a sole and satisfactory solution overlooks some very basic problems. Only a preeminent desire for punishment seems to sustain the demand for exclusive and extreme reliance on tort law. Even those plaintiff attorneys who place compensation ahead of punishment find less "betrayal" than does Brodeur. As Robert Rosenberg (cited in Dahl, 1985), an attorney with the Bankruptcy Court's Committee of Plaintiffs, put it: "If there's enough money for the victims, what difference does it make who pays it?"

Given the difficulties of using the tort law system for effective punishment or admonishment in cases of insidious injuries, we should turn elsewhere for our primary preventive

measures. Central to any of these must be recognition that injuries of this sort are inevitable. We show little inclination to give up the technologies or the scale of social organization characteristic of modern production processes and commodity circulation. As a result, some significant rate of insidious injuries will continue. New products that appear benign will prove fatal; diseases will be linked to environmental or occupational exposure to toxins now unrecognized. Traditions of free business and consumer decision-making only accentuate this. In sum, with even the highest possible standards of good business behavior, insidious injuries will be discovered years after they have been caused.

It is, of course, socially desirable both to compensate the victims of these injuries and to minimize their extent. The legal system presently offers few alternatives to the use of tort law as a means of securing compensation, even where long latency periods inhibit its effectiveness. Mandatory participation in government-backed compensation insurance schemes would speed the process of providing for victims, though tort law will no doubt remain a crucial backup and goad. But tort litigation needs to be used sparingly enough to encourage corporations to act responsibly in monitoring the safety of their products and production processes. Epidemiological data needs to be collected continuously to aid in the identification of potential insidious health problems and much relevant information will have to come from firms involved in manufacturing and marketing. It is important to recognize that business corporations are fundamentally public, not private, actors. Their creation partly by contract should not be taken to impede such regulation as is needed to ensure that they gather and disseminate information on product and process safety.

Regulatory apparatuses also need to be in place to coordinate action to minimize further risks when such problems are recognized. But such efforts will be severely impeded if firms' actions are oriented substantially toward defense against future tort liability. And in the absence of an alternative compensation scheme, and especially in the presence of the possibility of claims large enough to bankrupt the country's wealthiest firms, managers are apt to follow in the footsteps of those at Manville who manipulated information then dragged out legal defenses as long as they could. In the end, the Manville reorganization was a fair settlement, but it came much too late. We should hope that procedures for corporate reorganization will be established which are sufficiently well understood and appropriately administered that they can be used as other than a last ditch defense. Whether handled in bankruptcy court or by other agencies, such reorganizations provide an effective way of funding both present and future claims.

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