The Ford Pinto Case and the Development of Auto Safety Regulations, 1893–1978

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In an influential 1977 article in Mother Jones magazine, journalist Mark Dowie accused Ford Motor Company executives of callously deciding to produce and continuing to market the Pinto (which he labeled a "firetrap") even after company crash tests showed that its gas tank would rupture in rear-end collisions at relatively low speeds [Dowie, 1977]. This reprehensible decision, according to Dowie's interpretation, derived from a cost/benefit analysis which purportedly demonstrated that settling the few inevitable lawsuits filed by burn victims or their families would cost less than the eleven dollars per car needed to fix the defective tanks [Green, 1997, p. 130]. Dowie, along with well-known consumer advocate Ralph Nader, held a press conference in Washington, D.C. on August 10, 1977, to draw national attention to the case. One day later, the National Highway Transportation Safety Administration (NHTSA) began its own investigation of the Pinto gas tank [Cullen, Maakestad, and Cavender, 1987].

Lee Strickland was the NHTSA engineer assigned the task of determining if the Pinto gas tank met the criteria of a recallable safety defect [Strickland, 1996]. The NHTSA investigation did not occur in a social vacuum. Strickland and his staff were charged with evaluating the Pinto in the midst of national publicity that had already labeled its gas tank "defective" and accused the federal government (and NHTSA) of buckling to pressure from lobbyists for the auto industry [Dowie, 1977]. Consumers also wrote letters to NHTSA demanding that it take action against Ford after Dowie's article was published [NHTSA, 1978]. However, according to Strickland, NHTSA's evaluation revealed that the Pinto had a "fire threshold" (i.e. the speed at which a collision is likely to result in a fire) in rear-end collisions of between 30 and 35 miles per hour. Since the federal standard on fuel tank integrity (FMVSS 301, effective starting with 1977 model year cars) required that cars withstand only a 30 mile-per-hour rear impact, NHTSA would have to take extra-ordinary steps in order to force a recall of the Pinto [U.S. Department of Transportation, 1988].

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There was, and still is, disagreement within the federal government as to whether the law grants NHTSA the authority to hold cars with potential safety problems to a higher standard than the federal minimum. Based on all the evidence (and Dowie's article), Strickland's work group decided that Pinto was "unsafe" even though it met the minimum standard. The decision was then made to increase the speed of the crash tests to at least 35 miles per hour – beyond the Pinto's "fire threshold" (and beyond the federal minimum) – so that fuel-tank integrity would be compromised and sufficient leakage would occur to justify the application of the label "safety defect." To accomplish this goal, NHTSA selected a large and particularly rigid car as the "bullet car" (the moving vehicle in the collision) for the Pinto crash test, rather than the moving barrier that was normally used [U.S. DOT, 1988]. Both the Pinto and the bullet car gas tanks were filled with gas, rather than the non-flammable fluid normally used. The nose of the bullet car was weighted down so that it would slide under the Pinto upon impact and maximize the chance of contact with the gas tank. The bullet car's headlights were also turned on to provide a ready source of ignition. All of these steps, Strickland felt, could be justified on grounds that they approximated "real-world" worst-case circumstances, although most other cars were not subject to these test conditions. For NHTSA, the test was an unqualified success; the Pinto burst into flames upon impact. In the summer of 1978, NHTSA concluded that the Pinto gas tank represented a safety defect, and Ford agreed to "voluntarily" recall the 1971-1976 Pintos, even though they were built before the federal standard took effect [Strickland, 1996; Cullen, Maakestad, and Cavender, 1987, p. 165; NHTSA, 1978].

A few months prior to the recall, a civil jury in California awarded a record $126 million (later reduced by a judge to $6.6 million) to a plaintiff who had been badly burned in a Pinto. A few months after the recall, Ford was indicted (but found "not guilty") for reckless homicide in an Indiana court after three teenage girls burned to death in a Pinto after it was hit from behind. Authorities on the Pinto case have noted that if the Pintos had been built even a decade earlier, from 1961 to 1966 for example, neither the criminal trial, nor the record-setting civil award would have been likely occurrences [Cullen, Maakestad, and Cavender, 1987]. In fact, prior to 1966 the federal government did not even have the authority to recall cars; neither NHTSA, nor the larger agency in which it was housed (the Department of Transportation) yet existed [U.S. DOT, 1985]. In this paper, I attempt to make sense of Ford's use of cost/benefit analysis and NHTSA's highly-discretionary action in the Pinto case by placing these actions in the context of the social history of auto safety regulation.

Manufacturing Concerns and Auto Safety in Three Historical Periods

Safety Regulation and the Auto Industry From the Invention of the Car to the 1920s

By the time the first automobile was built in 1893, the federal government had taken the initial steps in regulating American industry [Eastman,

1984, p. ix]. Both the Interstate Commerce Act (1887) and the Sherman Antitrust Act (1890) had been passed, although neither dealt specifically with the automobile, much less auto safety [Cullen, Maakestad, and Cavender, 1987]. Nevertheless, both acts granted the federal government some degree of regulatory power over industry. This power would remain quite weak until the New Deal, after which the scope of federal power would continually expand [Rabin, 1986; Hawkins and Thomas, 1984, p. 3]. Eventually, federal intervention would extend to the auto industry, but until 1966 the industry was "almost completely non-regulated" in the area of safety [Mashaw and Harfst, 1990, p. ix].

The automobile was initially hailed as a giant leap forward in the safety of transportation. The first cars were quite slow, so serious accidents were rare, and the "horseless carriage" was not prone to the unpredictably dangerous mood swings that plagued horse-drawn carriages. With the first auto-related death in 1899, auto safety critics gradually began to dot the social landscape. As cars became capable of greater speeds, the death toll climbed and critics became more vocal [Eastman, 1984].

Many attempts at controlling the deaths and injuries due to auto traffic over the course of this century were doomed to failure because they conflicted with the "deeply held social values" about the automobile that quickly developed in American society [Mashaw and Harfst, 1990, p. ix]. The car was, and still is, viewed as a means to increase the personal freedom and mobility of a highly mobile population. The failure of one early attempt aimed at reducing auto deaths that threatened these values is illustrative. At the turn of the century, a safety advocate proposed that all "automobiles be preceded on the roadways by a person on foot bearing a flag by day and a lantern by night" [Mashaw and Harfst, 1990, p. 30]. This proposal certainly would have eliminated most traffic fatalities, but it conflicted with the fundamental purpose (personal mobility) of the automobile.

The chief manufacturing concerns at this time were also at odds with the safety critic's agenda. The two primary concerns of the industry were the development of better methods of mass production and advancing automotive technology. Forcing manufacturers to systematically design into cars increasingly higher levels of safety would no doubt have impeded progress in this area. The motoring public seemed to be satisfied with the level of safety present in cars in this era, while manufacturers reacted primarily to the demand that they build cars more efficiently and cheaply. Both the industry and the public, with the exception of a few safety critics, agreed that auto safety was the responsibility of the driver. Thus, the safety of car design was relegated to secondary importance, where it would remain for the next sixty years [Gusfield, 1981].

Safety Regulation and the Auto Industry From the 1920s to 1966

As the mass carnage on American highways became more apparent over the years, the industry was forced to take a more proactive role in maintaining "hegemony over the design of its products" and to stave off government regulation [Nader, 1972, p. 332]. By the 1920s, even the conservative President

Herbert Hoover felt that the federal government should play a role in preventing auto deaths, although for Hoover the proper role was to "encourage" the states to act, not to impose a strong federal presence on the industry [Eastman, 1984, p. 125]. In general, federal intervention during this period dealt with economic concerns, rather than safety [Rabin, 1986].

During these years, manufacturers had two related concerns: styling and the annual model change. Once the innovation of the techniques of mass production hit a plateau, and the auto market began to stabilize as oligopolistic practices predominated, the industry focused its energy on creating demand for its products. Before the 1920s, the remark attributed to Henry Ford that "consumers could have any color vehicle they wanted, as long as it was black" expressed a marketing philosophy appropriate for that time; the main problem confronting the industry was keeping up with demand [Mashaw and Harfst, 1990, p. 62]. After the 1920s, manufacturers had to create demand in order to consistently increase sales. Scientific and rational planning, largely absent from the industry's efforts in building safety into cars, became the hallmark of industry styling campaigns. The latest psychological and marketing techniques were employed in creating the demand for increasingly gaudy (and dangerous) car designs. Although industry representatives were fond of explaining their preoccupation with style, often at the expense of safety, in terms of consumer demand, there is no question that they also did everything they could to keep the balance between style and safety tipped heavily toward style [Nader, 1972; Eastman, 1984; Mashaw and Harfst, 1990]. For example, Ford's chief stylist in the 1950's defended hazardous tail fins and other dangerous, but functionally useless, cosmetic innovations by claiming, "The American public is to blame. If they want it, who are we not to let them have it?" [Eastman, 1984, p. 29].

One of the most significant results of the emphasis on styling as the selling point of cars was the annual model change. Institutionalized by the late 1920's, the annual model change provided a justification for "planned obsolescence" – purposely designing cars so they would not last more than a few years. According to one auto maker, this functioned to "transform a durable good into a consumable, thus permitting greater production" [Eastman, 1984, p. 25]. The annual model change, coordinated with manipulative advertising campaigns, created the psychological need to stay fashionable through car ownership, in addition to the consumer's very real need for an operational car. Buying a new car solved both these problems. In addition to stimulating demand for new cars, planned obsolescence allowed automakers to use cheaper materials in the construction of cars, thus lowering the costs of production. A former General Motors board chairman summed up the long-standing philosophy of the industry by stating, "Planned obsolescence, in my opinion, is another word for progress" [U.S. Congress, 1972, p. 50]. There was little discussion, however, of the safety consequences of using cheap materials.

Safety Regulation and the Auto Industry from 1966 to the Pinto Recall

By the time the National Traffic and Motor Vehicle Safety Act (1966) was passed, a number of important changes in American society had taken place. A "broadbased rise in affluence" among the population after World War II, moved American society towards a "general expectation of justice" [Friedman, 1994, p. 43]. Part of this expectation is a sense of entitlement concerning safe products. Various social movements (e.g., the Civil Rights movement) created an atmosphere conducive to federal intervention into previously unregulated arenas, and the increased involvement of experts in government since the New Deal provided the bureaucratic structures and personnel to produce and enforce these regulations [Rabin, 1986; Auerbach, 1976]. In this general environment, previously ignored claims about auto safety received greater attention.

Auto safety legislation was also partly the result of the publication of Ralph Nader's book, *Unsafe at Any Speed*, which acted as a catalyst for turning the auto safety movement into a legislative force [Nader, 1972]. The "need for legislation" written into the Act was that "senseless bloodshed" resulted from a lack of federal auto safety standards [U.S. DOT, 1985, pp. 103-3]. The Senate Commerce Committee, which drafted the legislation, argued that the auto safety establishment had paid too much attention to the "nut behind the wheel" and not enough to the "second collision" [U.S. DOT, 1985, p. 11]. In other words, further reductions in auto deaths from campaigns aimed at changing the behavior of the driver were unlikely. Given that accidents were inevitable, then, safety efforts should focus on car design – especially crashworthiness. For example, if the dashboard was designed to cushion the impact of the "second collision," rather than decapitate the driver because of sharp, unforgiving overhangs, then fatalities would be reduced. The industry had the technology to implement these safety features, but failed to do so. Therefore government intervention was required. The Committee could not have stated Nader's argument more concisely.

This marked the beginning of auto industry concern with crashworthiness [Mashaw and Harfst, 1990]. The manufacturers' initial safety campaigns were quite modest, however, and minimum government standards often became industry maximums [Lee and Ermann, 1997].

Influences and Constraints in the Social Construction of Auto Safety Regulations

The Auto Industry's Hegemonic Control of the Problem of Auto Safety

Although the auto industry did little to encourage public discussion of auto safety issues, it was instrumental in framing this debate. In Joseph Gusfield's terms, the industry "owned" the power to define problem of auto safety and fixed political responsibility for deaths on driver behavior and road construction, rather than car design [Gusfield, 1981, p.10]. Since the industry was the primary sponsor of auto safety research, its systematic support of safety

advocates with "approriate" views, and its lack of support for dissenting views were the primary means by which it maintained hegemony. A wide variety of views on auto safety were present at the turn of the century (many focused on car design), but the industry's actions over the course of the century effectively marginalized safety critics concerned with vehicle design [Eastman, 1984; Mashaw and Harfst, 1990; Nader, 1972]. As a result, most government initiatives for the first seventy years of the automobile's existence were directed at industry-approved targets. As an example of the federal government's priorities, as shaped over the years by the industry-dominated "traffic safety establishment," a 1965 Senate bill allocated federal funds to be used as follows: $320 million for highway-beautification, $5 million to study ways to dispose of scrapped cars, and a paltry $500,000 for a Commerce Department study of highway safety. No money was allocated for the study of safer vehicle design [Nader, 1972, p. 294].

The Problem of Causation

The key to the industry's hegemonic domination was the "problem of causation," the common-sense assumptions about causal relationships which "undergirds a society's social relations and institutions" [McEvoy, 1995, pp. 621-51]. Although there had been sustained criticism since the turn of the century of the view that auto deaths are caused exclusively by unsafe drivers and roads, the industry's support of the traffic safety establishment was effective in reinforcing certain common-sense ideas about traffic safety and suppressing others. The core idea that the industry sought to promote was that during "normal operation" vehicles were as safe as possible [Eastman, 1984, p. xiii]. Accidents were not part of "normal operation," so the automakers contended that they had no duty to provide occupants with crash protection.

As McEvoy notes, the problem of causation is bound to social and historical situations. In other words, the patterns of causal attributions are shaped by the social circumstances in which they are located. A "culture of low expectations" concerning auto safety was cultivated by the industry [Friedman, 1994, p. 57]. Thus, people generally did not expect to survive serious accidents, and except for a few safety researchers, they were not cognizant of the degree to which crashworthiness could be designed into cars [Eastman, 1984].

But a "focusing event," a concrete example that points out the flaws in the conventional view of a causal relationship, can bring about new patterns of causal attributions. Nader's exposé of the Corvair forced a direct confrontation with the industry's hegemony, leading to significant federal regulation. The symbiotic relationship between the "general expectation of justice" and the "reduction of uncertainty" is of central importance in understanding why a competing causal explanation gradually replaced the one propagated by the industry [Friedman, 1994, pp. 5, 71; McEvoy, 1995, p. 626]. As uncertainties were reduced by advances in science and technology, the general expectation of justice became more entrenched. As people pressed their demands for "justice" (forcing an auto maker via a civil lawsuit to pay for crash injuries, for example),

"uncertainties and impossibilities" withered away [Friedman, 1994, p. 71]. By the time accidents were no longer popularly understood as "mysterious dispensation[s] of Providence," the public demanded federal intervention [McEvoy, 1995, p. 630; Nader, 1972, p. 84; Eastman, 1984].

By the 1960s, the industry's hegemony in the area of auto safety had been weakened by a shift in the problem of causation and a growing crisis of legitimacy in all American institutions [Cullen, Maakestad, and Cavender, 1987]. Ford president Arjay Miller discovered the extent to which deference and industry hegemony had broken down when he testified before the 1965 Senate hearings on steering column safety. Steering columns in cars at that time represented a major safety hazard to drivers. Even in very low-speed front-end collisions, the steering column (at that time a straight metal rod which did not collapse as in today's cars) was often pushed through a driver's body by the force of the collision, often with fatal results. Miller tried to defend the industry, which refused to modify the steering column even though the technology was available and inexpensive, by claiming that the existing steering columns actually increased safety in some cases by acting as "an additional restraining device" to hold the driver in the car. Unfortunately for Miller, scientific data by then existed that flatly contradicted his assertion and showed the extent of unnecessary deaths steering columns caused (a reduction in uncertainty about what caused accident deaths). Senator Robert Kennedy quickly chastised Miller for his less than compelling testimony – a clear indication of the breakdown in the industry's hegemony and the federal government's resulting withdrawal of deference [Nader, 1972, pp. 98-99].

The Constraining Influences of Federalism

Federalism, and the larger legal culture of which it is a part, also played a key role in the evolution of auto safety regulations. This role was mostly one of maintaining the status quo. The law (civil and criminal) traditionally refused to recognize car manufacturers' responsibility for crashworthy designs [Nader, 1972]. Federalism also inhibited auto safety regulations. Partly because the traffic safety establishment equated traffic fatalities with driver behavior, the federal government viewed auto safety as a problem for the states to resolve, except in the area of safer road construction. After all, if the driver was the problem, federal involvement meant an increased federal presence (probably coercive) in the lives of individuals. Few were willing to advocate that. The decentralized nature of traffic accidents also prevented most people from considering auto safety as a national crisis, even as fifty-thousand people died annually in car accidents [Gusfield, 1981]. Only local traffic deaths made the news reports and this framed the issue as a local problem. Thus, the federal government did not regulate the auto industry until 1966 because the "common-sense" view suggested that auto safety was not within the scope of federal authority, despite the fact that all other transportation systems had been subject to federal regulation decades earlier [U.S. DOT, 1985, p. 270; Eastman,

1984]. The boilers on steamboats, for example, had been subject to federal safety regulation as early as 1838 [Rabin, 1986, p. 1212].

Federal officials often refused to intervene even when it became apparent that state efforts were woefully inadequate [Eastman, 1984]. One example of the impact of federalism is illustrative. Prior to federal regulation, the quality of car brake fluid was quite variable. Some brands of brake fluid would even begin to boil at relatively low temperatures. Brake fluid vaporization often led to total brake failure, and thus car accidents. However, when vehicles involved in crashes because of brake fluid vaporization were examined after the accident, and after the brakes had cooled, the fluid would appear normal. Obviously, investigators were likely to erroneously list "driver error" as the cause of these accidents. When the problem was finally exposed, states tried to pass laws to regulate brake fluid. When these laws failed, Congressman Kenneth Roberts proposed federal regulation and asked the Commerce Department for assistance in drafting it. Roberts was told,

> This Department is certainly sympathetic with the safety objectives contemplated by H.R. 2446. However, we would also like to emphasize that the several States have traditionally exercised regulatory authority over motor vehicle safety features; and it would seem that the entry of the Federal Government into the field of brake fluid standards regulation presents the basic question of the proper role of the Federal Government generally in the regulation of motor vehicle equipment [Nader, 1972, p. 298].

Roberts was ultimately successful in getting his bill passed on September 2, 1962. This rather minor regulatory initiative by the federal government set the precedent for increased regulatory involvement in 1966 [U.S. DOT, 1985, p. 103].

The Constraining Influences of the Legal Culture

Even after the ideological constraints of federalism were weakened, the larger legal culture prevented the full implementation of regulatory efforts. The "legal culture" is the "pattern of basic assumptions" that determines the nature and scope of legal activities [Mashaw and Harfst, 1990, pp. 19-25]. Regulatory efforts were hampered by two competing views of the role of the federal government. According to one view, the federal government's role was to maximize the profit potential of business enterprises through a rational structuring of economic markets. This suggests limited or no regulation of safety because this would inhibit profit maximization; besides, the "invisible hand" of the marketplace should force manufacturers to provide a level of safety in their products that is consistent with consumer demands. Another view emphasizes the protective potential of the federal role. In effect, regulation is required because consumers lack the ability to determine the relative safety of complex products (e.g., a car with thousands of parts). Once the federal government assumed a role in the regulation of auto safety, legal

professionals (judges, lawyers, administrative officials, etc.) set about the task of balancing these two views and determined the nature and scope of federal regulation [Mashaw and Harfst, 1990].

The Supreme Court has been instrumental in determining the scope of federal power in regulatory endeavors. Until the 1930's, the Court afforded greater constitutional protection to the profit maximization view, even if it did not frame its protection in these terms. Starting with the New Deal, the Court gradually reduced its interference with government regulation of economic matters [Hall, 1996, p. 492]. For the next several decades, the Court generally deferred to the wisdom of the legislative and executive branches, although the courts at all levels were quite willing to prevent "unreasonable" interference with profit maximization. As the scope of federal intervention expanded into virtually all domains of social life by the 1970s, courts became less deferential and increasingly required federal agencies to justify their rules and standards [Rabin, 1986].

The impact of court interference on federal auto safety regulation was far-reaching. A number of key cases affected the power of federal regulatory efforts, as well as the views of NHTSA's staff regarding how the regulatory process should work. In an 1898 case, *Smyth v. Ames*, the Supreme Court set up the "rule of reasonableness." This test required an assessment of the impact of regulations on affected businesses. This impact would then have to be weighted against the benefits of the proposed regulation to determine whether government intervention was justified [Cullen, Maakestad, and Cavender, 1987, p. 125]. Thus, the government did not have unqualified authority to regulate merely because human lives were at stake, business interests were also deemed worthy of protection. Two federal cases, decided years after *Smyth*, directly confronted auto regulation issues and provided for additional constraints on the government. In one case, a federal court held that NHTSA was obligated to allow manufacturers to voice objections to proposed regulations, which could be issued only after "a rational consideration of the relevant matter presented" [*Automotive Parts & Accessories Association v. Boyd*, 1968, p. 341]. This forced NHTSA to evaluate and respond to every objection before issuing a standard. As a result, auto makers developed the stalling tactic of attacking one part of a proposed standard at a time. Thus, all NHTSA standards have had a long "gestation period" [Mashaw and Harfst, 1990, p. 70]. The second important federal case required that safety standards be "practicable" and provide an "objective" safety benefit [*Chrysler Corporation v. Department of Transportation*, 1972, p. 661]. The holding in this case allowed auto makers to delay the promulgation of a standard by arguing that it was not practicable, and NHTSA had to address each of these arguments as they appeared. In addition, NHTSA could not issue a standard simply because it would "increase safety," the standard had to demonstrate an objective safety benefit. In other words, NHTSA had to show the number of lives that it would save and demonstrate that its performance tests achieved this purpose. In sum, manufacturers were able to use the "rule of reasonableness," and its corollaries, to consistently stall

the regulatory process. This interference ultimately transformed NHTSA from its original "technology-forcing" role (forcing manufacturers to increase auto safety through the promulgation of auto standards) to a role built mostly around recalling cars that did not meet existing (often weak) standards [Mashaw and Harfst, 1990].

Federal Regulation and the Ford Pinto

The peculiar history of auto safety regulation is of central importance in understanding the course of events in the Pinto case. The Pinto has been characterized as "the most controversial automobile ever built," largely as a result of perceptions about the gas tank that have been shaped by Mark Dowie's exposé [Strobel, 1980, p. 169]. The Pinto was designed and marketed in the wake of the 1966 legislation and by the time it was released in 1970, the industry's hegemony had been considerably weakened. Vehicle design had become a focus of federal regulation and popular interest, and many people felt they were entitled to a higher degree of safety than manufacturers were providing. The "problem of causation" of auto accidents had shifted at the same time that "the general expectation of justice" continued to expand. Furthermore, American institutions were suffering from legitimation deficits and a general social movement against corporate deviance was gaining momentum. Thus, throughout the 1960s and 70s the safety views of the auto industry subculture became increasingly divergent from the views of the larger culture. By 1977, Dowie could have written about any number of auto safety issues, since the public would have disagreed with many of the industry's safety practices, but few would have captured the public's imagination like fiery Pinto crashes. Besides, Dowie had a damning company memo demonstrating the calculated ease with which Ford sacrificed lives in the name of profits [Dowie, 1977].

That infamous memo [Grush and Saunby, 1973], along with other internal documents, indicated to Dowie that Ford knew that the Pinto was defective, but callously figured that settling lawsuits would be cheaper than fixing it. However, the memo can be more accurately viewed as a product of the regulatory process – a process structured by the larger legal culture. It was written in 1973, three years after the first Pinto was sold, so it cannot be the document upon which design decisions (made in 1967-1969) were based. Ford was aware of the outcomes of the court cases discussed above, thus cost/benefit analyses showing a proposed standard was not "practicable" or "reasonable" could bring about its delay or defeat. In fact, cost/benefit analyses were routinely used by the industry and NHTSA in auto safety debates. Given the lengthy history of a lack of concern with crashworthiness, industry representatives felt justified in arguing against NHTSA's fuel tank standard. The dollar figure used in its cost/benefit analysis was actual NHTSA's estimate of the societal value of human life, not the estimated average corporate payout to families of burn victims [Lee and Ermann, 1997; U.S. GAO, 1976].

NHTSA's discretionary action also makes more sense in this context. Frustrated by the court-imposed requirement of considering each objection (on cost/benefit or other grounds) to its proposed standards, NHTSA was unable to take the proactive safety role its employees favored [Mashaw and Harfst, 1990]. Federal standards remained weak despite NHTSA's attempts to strengthen them. Although NHTSA was aware, years before Dowie's article was written, that the gas tanks in Pintos and all of the other cars of its class performed badly in rear-end collisions, it forced a recall of only the Pinto [NHTSA, 1978]. When asked why the Pinto was held to a higher standard, NHTSA engineer Lee Strickland analogized that, "Just because your friends get away with shoplifting doesn't mean you should get away with it too" [Strickland, 1996]. Dowie's mobilization of public opinion against the Pinto enabled NHTSA to at least increase the crashworthiness of one car, even as other cars escaped scrutiny.

Thus like all federal intervention, the regulation of auto safety has been the result of conflict and compromise. Federalism, the legal culture, the problem of causation, and the industry's hegemony have limited efforts to increase auto safety. At the heart of the auto safety problem is the very idea of regulation, because "regulation implies a toleration of conduct that causes, or possesses the potential for harm, not the eradication of existing harmful acts" [Hawkins and Thomas, 1984, p. 8]. As we have discussed, the personal freedom and mobility provided by the automobile has become a "deeply held social value" that even weak regulations threaten. Regulatory efforts can only attempt to strike a balance between competing values. The Ford Pinto case shows how ideology influences these attempts. Industry ideology justified the use of cost/benefit analysis to fight what insiders perceived to be unreasonable regulations, while the ideology of regulators supported the broad use of discretion as an adaptation to industry regulation-stalling tactics.

References

Auerbach, J.S., *Unequal Justice: Lawyers and Social Change in Modern America* (New York, 1976).

Automotive Parts & Accessories Association v. Boyd, 407 F.2d 330 (1968).

Chrysler Corporation v. Department of Transportation, 472 F.2d 659 (1972)

Cullen, F.T., W.J. Maakestad, and G. Cavender, *Corporate Crime Under Attack: The Ford Pinto Case and Beyond* (Cincinnati, 1987).

Dowie, M., "Pinto Madness," *Mother Jones*, 2 (September-October, 1977), 18-32.

Eastman, J.W., *Styling vs. Safety: The American Automobile Industry and the Development of Automotive Safety, 1900-1966* (New York, 1984).

Friedman, L.M., *Total Justice* (New York, 1994).

Green, G., *Occupational Crime* (Chicago, 1997).

Grush, E., and C. Saunby, *The Grush/Saunby Report* (Copy on file with the author, 1973).

Gusfield, J., *The Culture of Public Problems: Drinking-Driving and the Symbolic Order* (Chicago, 1981).

Hall, K., *American Legal History: Cases and Materials* (New York, 1996).

Hawkins, K., and J.M. Thomas, eds., *Enforcing Regulation* (Boston, 1984).

Lee, M., and M.D. Ermann, *Pinto Madness or Acceptable Risk? The Construction of an Auto Safety Issue as a Social Problem*, (Paper presented at the annual meeting of the Eastern Sociological Society in Baltimore, 1997).

Mashaw, J.L., and D.L. Harfst, The Struggle for Auto Safety (Cambridge, 1990).

McEvoy, A.F., "The Triangle Shirtwaist Factory Fire of 1911: Social Change, Industrial Accidents, and the Evolution of Common-Sense Causality," *Law and Social Inquiry*, 20 (Spring, 1995), 621-651.

Nader, R., *Unsafe at any Speed: The Designed-In Dangers of the American Automobile* (New York, 1972).

National Highway Transportation Safety Administration, Office of Defects Investigation, *Investigation Report: C7-38* (Washington, DC, 1978).

Rabin, R.L., "Federal Regulation in Historical Perspective," *Stanford Law Review*, 38 (1986), 1189-1326.

Strickland, L., Personal interview conducted on September 4, 1996.

Strobel, L.P., *Reckless Homicide: Ford's Pinto Trial* (South Bend, 1980).

United States General Accounting Office, *Effectiveness, Benefits and Costs of Federal Safety Standards for Protection of Passenger Car Occupants* (Washington, DC, 1976).

United States Department of Transportation, *National Traffic and Motor Vehicle Safety Act of 1966: Legislative History* (Washington, DC, 1985).

United States Department of Transportation, *Federal Motor Vehicle Safety Standard No. 301* (Washington, DC, 1988).