Book Review

Requiem for Regulators: The Passing of a Counter-Culture?

The Struggle for Auto Safety, by Jerry L. Mashaw and David L. Harfst. Cambridge, Mass.: Harvard University Press, 1990. 285 pages.

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The Struggle for Auto Safety is a tour de force, written with an eloquence, insight, mastery of institutional detail, and grasp of broad economic, political, social and legal themes that few other studies of regulation can match. For most readers, the book will evoke a series of reactions. There is, on one hand, a sense of excitement and exhilaration at the soaring vision and noble ideals that motivated the enactment of the Motor Vehicle Safety Act of 1966. On the other, there is a sense of despondency, even tragedy, mixed with comic relief, as the National Highway Traffic Safety Administration (NHTSA) became increasingly embroiled in endless administrative proceedings, and faced massive setbacks at the hands of the federal courts and a Congress whose commitment to the initial ideals of the Act, or indeed any other coherent rationale for that legislation, proved wafer-thin.

Regulators, legislators, private parties affected by regulation and students of the regulatory process would be foolish, and in some cases foolhardy, to deny themselves the benefits of this book's illumination. At the risk of seeming churlish and demanding more from what already is a magnificent contribution to our understanding of the regulatory process, I nevertheless wish that the authors had placed greater emphasis on our inadequate scientific knowledge of the positive effects of regulation, and on the role of ideology in conflicts between personal freedom and social welfare, as I develop further in these comments.

I. A Saga of Unfulfilled Promise

Mashaw and Harfst begin their story with the events leading up to the Act's passage in 1966. The authors see the statute as reflecting the confluence of two

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revolutionary movements that had gathered increasing momentum in the preceding years. First, there emerged a new science of accidents that viewed personal injuries as primarily caused by the epidemiological triad of host, agent, and environment. In the context of auto safety, the host is the driver, the agent is the rapid energy transference that occurs in auto collisions, and the environment is the motor vehicle where host and agent interact following the initial collision. The epidemiological perspective on accidents stressed the importance of the second rather than the first collision. The policy prescriptions embodied in the Act stressed programs that did not primarily turn on eliciting the active cooperation or behavioral adaptation of the host (i.e. the driver), but rather took this behavior as given and instead focused on making the second collision environment more forgiving of driver behavior.

The second revolution concerned legal and institutional issues related to the regulatory process. The 1960's were a time of liberal activism in which law was seen as a central and proactive ingredient in progressive social policies. In this context, regulatory processes that emphasized federal rather than state regulatory initiatives, a single administrator rather than collegial agencies, and rule-making rather than adjudication were seen as important elements in a refurbished and proactive conception of regulation. Regulation of this type was expected to differ from prior regulatory regimes, which, it was often alleged, were sometimes captive to the private interests subject to regulation.

The two intellectual revolutions were reflected in a motor vehicle safety scheme in which NHTSA would, through its rules, force the automobile industry to adopt technology that would effectuate the epidemiological view of accidents. As the authors put it, science was to be combined with law to remake the world.²

Both Houses of Congress endorsed this vision in 1966 without a single negative vote. Similar regulatory initiatives were adopted at roughly the same juncture by Congress in the form of the Consumer Product Safety Commission, the Environmental Protection Agency, and the Occupational Safety and Health Administration.

According to Mashaw and Harfst, the Motor Vehicle Safety Act was an historical anomaly:

It subjected an unwilling industrial giant to regulation that its putative beneficiaries had not requested in order to address a social problem that had grown progressively less serious under nearly sixty years of uncontroversial state management [fatality rates per miles driven had dropped dramatically over this period]. And yet passage of the act commanded

J.MASHAW & D. HARFST, THE STRUGGLE FOR AUTO SAFETY 1-7 (1990) [hereinafter by page number].

^{2.} P. ix.

a political consensus of rare proportions, at least in peacetime. It was adopted by a vote of 371 to 0 in the House and 76 to 0 in the Senate. If the act was a political oddity, it was nonetheless an oddity whose time had come.³

The authors explain the oddity in the following passage:

The emergence of the Safety Act of 1966 was almost comically over-determined. The recipe for the legislation read: take a persistent social evil; confront it with new technological and institutional solutions, painstakingly developed by creative scientists and reformist lawyers over several decades; place problem and solution in the heady atmosphere of an activist polity, apparently determined to rid the country (if not the world) of virtually all ignorance, vice, poverty, and danger through the application of national political power; add the drama of corporate villainy and heroic individual commitment [the Ralph Nader-General Motors affair]; wrap in the rhetoric of both scientific rationality and justice; stir by political competition and by skillful use of the media; and presto! This is the essence of the revolution of 1966.⁴

Pursuant to its statutory mandate, NHTSA in its early days contented itself with adopting design standards that were already widely prevalent in the industry. Beginning in 1968, however, the agency began to embark on what it conceived to be its primary mission: the promulgation of rules designed to realize the promise of passivity.

Prominent among these proposed rules was Standard 208. That rule initially simply required the installation of lap and shoulder belts but by way of an amendment in 1969, proposed moving to a passive-restraint technology. While it principally contemplated air-bags, Standard 208 also reflects a more general shift from design standards to performance standards. The rule envisaged setting standards that permitted an anthropomorphic dummy in frontal barrier crashes at 30 m.p.h. to survive, with car manufacturers being left with the burden of developing appropriate protective technology. This approach to auto safety rule-making was generalized in the so-called October Plan of 1971, in which NHTSA viewed Standard 208 as but a first step in the process of folding virtually all existing rules into a super-rule embodying an integrated set of performance-based standards. Contemplated in the October Plan was a brave new world of air-bags, automatic radar breaks, speed governors, periscopes, and alcohol interlocks.

^{3.} P. 50.

^{4.} P. 67.

However, the vision was short-lived. In 1972, the 6th Circuit upheld an injunction against Standard 208's implementation in Chrysler Corp. v. Department of Transportation.⁵ That decision required tests for compliance with performance standards to be capable of identical results when test conditions were duplicated. The dummy specifications proposed in the standard were incapable of meeting this requirement. Subsequent decisions enjoined the implementation of other standards, such as air-brakes for trucks, buses and other heavy vehicles, on the grounds that NHTSA had not adduced sufficient evidence of the safety gains likely to be realized from the technology-forcing standards. The courts, of course, failed to realize that safety gains from such standards do not lend themselves to precise prediction. Other decisions invalidated rules on procedural grounds where NHSTA had modified proposed standards in response to previous comments and petitions without initiating further rounds of notice and comment. The cumulative effect of the decisions, according to the authors, made NHTSA largely helpless in the face of the full court press that an emboldened automobile industry subsequently mounted against most of the agency's proposed rules.

The agency's problems on the political front were even greater. Largely as a result of oversight hearings in 1974, Congress enacted amendments to the Act, which, according to the authors, subverted the original scientific rationale of the statute in several ways. Congress, by an overwhelming majority, first repealed an ignition interlock standard which prevented an automobile from being started unless seatbelts were attached, despite highly favorable costbenefit ratios associated with that standard. Relatedly, Congress also gave itself the power to veto all future passive restraint measures that NHTSA might propose. In the wake of several widely publicized school bus accidents, Congress, in addition, mandated school bus safety standards despite uncontroverted evidence as to their lack of cost-effectiveness. Finally, Congress substantially extended the agency's powers with respect to mandatory recalls of defective vehicles by requiring manufacturers to remedy safety defects at no cost to the owners.

In the legislative debate over the ignition interlock, anecdotal arguments overwhelmed scientific rigor. As the authors write:

Malfunction horror stories became the order of the day. Ignition interlocks had stranded (or could strand) a motorist in the path of an oncoming train. Women were unable to flee rapists. Parking attendants, who had to buckle-up no matter how short the trip, were going nuts. Housewives were buckling in their groceries. Hertz could not obtain sufficient towing services to retrieve malfunctioning vehicles. And in

^{5. 472} F.2d 659 (6th Cir. 1972).

account after account, the family pet, usually a dog, set lights blinking, buzzers buzzing, and interlocks locking.⁶

In the Senate floor debate, Senator Eagleton related a story from a constituent who had put a turkey in a seat belt on the drive home from the supermarket, and also reported that Senator Tower had to buckle in his dachshund in order to start his car. The combination of merriment, ridicule, and outrage was more than the epidemiological theory of accidents could withstand.

In the wake of the judicial and legislative assault on its original statutory mandate, NHTSA shifted its focus from regulation by rule-making to regulation by recall, a shift that continues to the present date. Since the early 1970's, NHTSA has adopted few if any new safety standards. The number of mandatory recalls, however, has escalated dramatically, with recalls in several years exceeding new car sales. Despite the level of recalls, the authors claim that the empirical evidence shows that the impact of recalls on safety is trivial, perhaps amounting to a reduction of deaths and injuries of less than 1.5 percent.⁷

This contention contrasts with the Brookings Institution's comprehensive empirical evaluation⁸ of the safety gains from NHTSA motor vehicle standards. The latter study finds that the standards may have reduced fatalities by as much as 40 percent since the inception of the legislation, and may result in an annual reduction of 23,000 fatalities. Despite the Brookings Institution's equally positive assessments of the costs and benefits of air-bags and other passive restraint systems, NHTSA is now committed to abandoning any passive restraint standard if states accounting for two-thirds of the population adopt mandatory seat-belt use laws that satisfy certain conditions. As the authors suggest, this reflects a reorientation of auto safety regulation from science and planning to the old and, scientifically speaking, discredited approach to traffic safety of crime and punishment.⁹

II. The Authors' Solutions

In their concluding chapter, Mashaw and Harfst suggest means for refurbishing the intellectual underpinnings of NHTSA's original mandate. Prominent among these is a suggestion relating to insurance. The authors suggest that a movement towards first-party no-fault insurance may provide an effective premium to drivers who purchase cars that reduce their own accident costs. This

^{6.} P. 139.

^{7.} P. 168.

^{8.} R. CRANDALL, H. GRUENSPECHT, T. KEELER & L. LAVE, REGULATING THE AUTOMOBILE 75 (Brookings Institution 1986) [hereinafter REGULATING THE AUTOMOBILE].

^{9.} P. 111.

incentive is allegedly attenuated under the traditional tort and third-party liability insurance regime, in which some of the safety gains that arise from more safely designed automobiles accrue to negligent third parties whose liabilities, and hence insurance premiums, are correspondingly reduced.

The authors, in addition, propose amending the administrative process to permit industry challenges to proposed rules only where NHTSA initiates enforcement action for non-compliance with the rules, rather than at earlier stages of formulation, thus preventing the industry from mounting an offensive against proposed rules at their very inception.

Neither the insurance nor the administrative procedure proposal is very convincing. While the first proposal may create desirable incentives for self-precautions, it is also likely to attenuate incentives for precautions toward third parties, a possibility evidenced by increases in fatality rates in pure no-fault jurisdictions. The second proposal seems a recipe for expensive chaos, as manufacturers variously comply with or disregard standards, according to their willingness to bet on a rule's invalidation in subsequent enforcement proceedings.

In any event, the authors conclude that if these and related proposals are not acted upon:

[T]he game is up. If progress cannot be made by combining clear, steady goals with strategically deployed incentives for cooperative action, then NHTSA should throw in the towel. Repeal of the Motor Vehicle Safety Act of 1966 would at least represent a candid admission that technology forcing is not really an available regulatory strategy; and it might, therefore, promote a heightened search for alternative forms of collective action in pursuit of the act's other public health goals. A proposal to put NHTSA formally out of the motor vehicle safety business also has the advantages of candor and incrementalism. It would not be a major alteration of the agency's current posture.¹¹

This conclusion is a somber dénouement to the exalted aspirations that ushered in the Motor Vehicle Safety Act. For those of us educated in the 1960's and exposed to tracts such as Saul Alinsky's Reveille for Radicals¹² and Rules

^{10.} See Gaudry, The Effects on Road Safety of the Compulsory Insurance, Flat Premium Rating and No-Fault Features of the 1978 Quebec Automobile Act, in Appendix, REPORT OF THE INQUIRY INTO MOTOR VEHICLE ACCIDENT COMPENSATION IN ONTARIO (1988); Devlin, Some Welfare Implications of No-Fault Automobile Insurance, 10 INT'L REV. L. & ECON. 193 (1990); McEwen, No-Fault and Road Accidents: Some Australian Evidence, 9 INT'L REV. L. & ECON. 13 (1989).

^{11.} P. 254.

^{12.} S. ALINSKY, REVEILLE FOR RADICALS (1946).

for Radicals¹³, in which the prospects for re-orienting an alienating and heart-less culture seemed boundless, this book is a brutal reality fix.

III. Theories of Regulation: Interest, Culture and Values

In explaining the saga of American motor vehicle safety regulation, Mashaw and Harfst provocatively examine two groups of conventional positive theories of regulation and offer a third of their own. With respect to the first group, private interest or interest group theories of regulation, the authors rightly point out that such theories exhibit an irreducible tautological or non-falsifiable quality. Whichever interest group can be identified as benefiting from a regulatory regime *ex post* can be claimed to have successfully demanded and obtained the particular regulatory outcomes that now obtain.

As to the second group of theories, public interest theories of regulation, Mashaw and Harfst note that if the public interest is defined as the outcome of pluralistic competition amongst interest groups, a public interest theory largely elides with private interest theories of regulation. Moreover, even in most private interest theories of regulation, interest groups rarely stand up and unashamedly demand that their self-interest be served. Rather, they attempt to rationalize their self-interest in public interest terms, so that whatever the regulatory outcome is, it will be consistent with one form or another of these public interest rationalizations. Thus, public interest theories of regulation are also largely tautological and non-falsifiable.

The empirical evidence in the case of U.S. highway safety does not fit tidily with either a private or public interest theory. The initial pressure for regulation did not originate with concentrated interests, and neither NHTSA nor Congress subsequently became captive to the auto industry. Safety remained a concern of Congress in 1974, although in a new and incoherent form. Regulation by recalls imposed significant costs on the auto industry. Public interest theories of regulation may explain the course of NHTSA's history, but notions of what constituted the public interest were shifting and elastic.

By way of an alternative to these two positive theories of regulation, Mashaw and Harfst offer a legal culture hypothesis intended to explain the experience of NHTSA, and by implication that of other regulatory agencies. The authors' legal culture approach emphasizes individual rights, limited government, judicial review, the separation of powers, and federalism. ¹⁴ The primacy of rights and the constitutional system of checks and balances generates a major inertia factor in the legal and political system, which is

^{13.} S. ALINSKY, RULES FOR RADICALS (1971).

^{14.} P. 21.

inhospitable to the proactive and technology-forcing rule-making regulatory strategy envisaged for NHTSA in 1966.

IV. Comments on the Legal Culture Hypothesis

The authors' explanation for the disintegration of the original vision that lay behind the Motor Vehicle Safety Act requires critical scrutiny. My reactions to this thesis are organized around the science-law-politics axis.

With respect to the scientific rationales for the original conception of NHTSA's mandate, the authors fail adequately to acknowledge the controversies that developed in the academic literature from about the mid-1970's onwards as to the costs and benefits of safety regulation both in the motor vehicle safety field and in related regulatory fields, such as product safety regulation, environmental regulation, and occupational health and safety regulation.¹⁵ In 1975, Professor Peltzman of the University of Chicago published a controversial study¹⁶ purporting to show that motor vehicle safety regulation had not changed underlying fatality rates. Peltzman's explanation for the empirical findings set forth in his paper was that while increased private demand for safety and safety regulation will both produce lower costs per accident. . . regulation, to the extent that it is independent of the private demand for safety. will produce a higher equilibrium driving intensity for the same reduction in cost per accident.¹⁷ Insofar as regulation reduces safety risks on certain margins, drivers will increase safety risks on other unconstrained margins. This is sometimes referred to as the risk homeostasis hypothesis. 18 Later studies 19 reached divergent findings on the safety effects of motor vehicle regulation, although, as previously noted, a recent study published by the Brookings Institution,²⁰ found strikingly positive effects on the basis of nine more years of data than were available to Peltzman.

A stream of other empirical studies,²¹ primarily by economists, have generally found few if any safety gains from regulation in numerous safety contexts. Those safety gains that were realized have often entailed costs disproportionate to their benefits. These empirical studies have to date not been

^{15.} This literature is reviewed in Dewees & Trebilcock, *Tort and Its Alternatives*, in 1 A.L.I., ENTERPRISE RESPONSIBILITY FOR PERSONAL INJURY: REPORTER'S STUDY (1991).

^{16.} Peltzman, The Effects of Automobile Safety Regulation, 83 J. Pol. Econ. 587 (1977).

^{17.} P. 682.

^{18.} See J. Adams, Risk and Freedom: The Record of Road Safety Regulation (1985).

^{19.} See, e.g., Robertson, A Critical Analysis of Peltzman's The Effects of Automobile Safety Regulation', 11 J. ECON. ISSUES 587 (1977); Ott, The Effectiveness of Automobile Safety Regulation: Evidence from the FARS Data, 74 AM. J. PUB. HEALTH 1384 (1984).

^{20.} REGULATING THE AUTOMOBILE, supra note 8.

^{21.} See Dewees & Trebilcock, supra note 15; see also C. SUNSTEIN, AFTER THE RIGHTS REVOLUTION 74-110 (1990).

systematically rebutted.²² Indeed, the empirical literature on the efficacy of the entire range of traffic safety countermeasures, i.e. criminal sanctions, licensing, driver education, highway safety design and so forth, reflects vast ambivalence as to which measures induce tangible safety gains and how to obtain maximum benefit from the marginal dollar spent on traffic safety.²³ A question thus arises as to whether the original scientific and intellectual underpinnings of the Act were grossly oversold.

The authors only casually acknowledge this issue on the second to last page of their book, leaving most readers with the impression that a relatively firm and settled scientific consensus exists as to the safety gains to be realized by proactive technology-forcing motor vehicle safety standards. The tenor of *The Struggle for Auto Safety* throughout is one of judicial and congressional derailment of a well-conceived initial regulatory mandate for NHTSA, leading to the loss of substantial potential safety gains. This conclusion is highly contestable, although one would barely deduce this from the book.

Mashaw and Harfst may also overstate the distinctive features of American legal culture as an explanation of the derailment of auto safety regulation. Few if any western legal systems would permit an agency headed by a single administrator to promulgate technology-forcing standards against largely unspecified initial statutory criteria, eliminating "unreasonable risks," without some form of accountability through judicial review or the political process.

The technology-forcing mandate that NHTSA perceived itself as having been initially granted poses inherent problems in this respect. Setting general performance standards and leaving auto manufacturers to determine what technologies they might adopt for compliance, though initially appealing, becomes problematic upon further examination. An advocate of performance standards might argue that this approach parallels the rationale upon which pollution taxes are based. Such taxes reflect the societal damage function associated with pollution, and leave polluters to determine what abatement precautions to adopt, with abatement and the development of abatement technology taking place up to the point where the costs of doing so begin to exceed the tax. In the context of motor vehicle safety, however, not only do performance standards fail to specify the abatement precautions to be taken, but the social maximand is also highly contestable. One could specify the maximand as surviving a head-on crash at 30 m.p.h. (as NHTSA proposed), or surviving a head-on crash at 50 m.p.h. (as Ralph Nader proposed), or reducing traffic fatalities by a given percent per year.

^{22.} But see Kelman, On Democracy-Bashing, 74 VA. L. REV. 199, 238-62 (1988) (criticizing analyses of safety regulation).

^{23.} See M. FRIEDLAND, M. TREBILCOCK & K. ROACH, REGULATING TRAFFIC SAFETY (1990) [hereinafter REGULATING TRAFFIC SAFETY].

What is the social damage function that governs the performance standards for which manufacturers choose appropriate abatement technologies? With neither a social damage function nor an abatement function coherently specified or justified, technology-forcing performance standards assume a high degree of arbitrariness which make them difficult to defend both on judicial review and in the political arena.

While there is admittedly no ready technocratic solution to this problem, the authors' suggestion²⁴ that Congress legislate the social maximand and leave manufacturers free to determine how best to meet it carries substantial risks. As Mashaw and Harfst so dramatically point out with respect to the 1974 amendments to the Act, Congressional action is likely to be contradictory and incoherent. Indeed, even apart from the 1974 amendments, Congressionally-mandated emission and fuel efficiency standards, according to the same Brookings study that reported such positive empirical findings on NHTSA's safety standards, incurred costs greatly disproportionate to the benefits.

The authors portray the courts that reviewed proposed NHTSA standards as clogging progress and showing technological illiteracy. This view, however, seems to make light of the formidable accountability issues that somehow must be resolved. A regulatory body operating under delegated legislation must surely be accountable to someone. Yet the courts may not be equipped to pass reasoned technological second-judgments and clearly lack the political legitimacy to choose the social maximand. This last task has not been taken up by the legislative principals who, as previously noted, do not seem willing or able to formulate coherent safety goals.

As to the political element in the axis, I believe that the authors give too little weight to broad issues of ideology relating to their legal culture theory. The legal culture hypothesis is largely presented as something of a deus ex machina, which simply exists as part of the policy environment and operates as an enduring constraint on regulatory policy-making within that environment. The legal culture hypothesis does not fully explain the disappointing performance of most regulatory regimes in the context of safety, with problems of over and under-regulation and inappropriate choices of policy instruments seemingly endemic. Moreover, legal culture must surely reflect the real values and interests of real persons. Such values and interests are ultimately better characterized as ideological than legal in nature. The legal culture hypothesis is thus too self-indulgent for this reviewer's taste.

V. Values in Conflict in Traffic Safety Regulation

At this juncture, however, we are moving from positive to normative theories of regulation. The normative problem is that any policy response is likely to be either dramatically under-inclusive or over-inclusive with respect to the non-conforming population of drivers. One is likely to favor or disfavor particular classes of countermeasure according to how one weighs the competing values in autonomy-welfare and individual freedom-collective interest tradeoffs.

For example, the empirical evidence suggests that criminal sanctions in the area of traffic safety are generally of limited efficacy.25 This is in part because criminal sanctions are in practice under-inclusive as to the non-conforming population that is apprehended by law enforcement agencies. However, increasing the apprehension rate presumably would require a dramatic increase in police and court resources, and, in many cases, entail over-inclusive impacts on drivers. A case in point is presented by proposals for mass breath-testing of the driving population for alcohol or drug impairment, a measure that would give rise to both civil libertarian and cost-related objections. Alternatively, sanctions could be increased and made more severe for that subset of offending drivers actually caught in order to deter future would be violators. However, this measure entails penalties that are objectionable on the ground that they are not calibrated according to individual culpability and are inconsistent with notions of proportionality and desert in the imposition of criminal sanctions. Increasing the apprehension rate or imposing more severe penalties to offset low apprehension rates is thus each likely to offend individualistic notions of responsibility.

In the case of "environmental" countermeasures, like motor vehicle safety regulation, similar objections will arise. Moving from driver-centered seatbelt usage requirement to the much more expensive compulsory air-bag will mean that drivers who presently buckle-up will be compelled to cross-subsidize those who do not. In addition, to the extent that environmental measures are designed to promote self-protection, drivers with a greater taste for risk or who attach strong disutility to the direct or indirect costs of these measures, will also object on the grounds that their individual risk-utility tradeoffs are being violated in the name of a misdirected paternalism. The experience with the ignition interlock standard in the 1970's exemplifies this objection.

Thus, a major political problem comes into focus. Persons who already adopt responsible self-protective precautions will not favor more stringent precautions. Those persons who eschew such precautions will object to being saddled with safety measures that are more expensive than those they could

have undertaken voluntarily. The Motor Vehicle Safety Act somehow seemed to assume that individuals as voters would support initially and continue to support a legislative and regulatory initiative that required them to invest in mandatory safety precautions that they would not find in their best interests as individual economic actors. As Mashaw and Harfst point out, the proponents of the 1966 Act made no serious market failure argument for its enactment; the Senate Commerce Committee, after lengthy hearings, reported that it did not have the foggiest notion as to the truth of the proposition that "safety does not sell." 26

Mashaw and Harfst are somewhat dismissive of theories of second order preferences as to first order preferences (the metaphor of Ulysses and the Sirens), or more fully elaborated theories of adaptive preferences.²⁷ Sunstein, for example, might argue that once passive restraint systems are required, drivers will come to perceive that the costs they initially associated with such systems were exaggerated and will adapt their preferences accordingly. Such theories appear to provide perhaps the major normative rationale for the Act and similar legislation.

According to these theories, the scientific rationale underlying the initial mandate of NHTSA would face substantial initial public resistance which would decline over time as preferences adapted to new perceptions of a safety standard's costs and benefits. However, the history of NHTSA's experience suggests the opposite: there was general initial public and political support which declined over time as resistance grew.

The one countervailing example appears to be mandatory seatbelt use laws which have now been adopted in many jurisdictions and appear to have increased use rates dramatically despite trivial penalties and low levels of enforcement. This experience may support Sunstein's argument for paternalistic regulation on the grounds of adaptive preferences. The case of seatbelt laws, however, may also suggest increasing resistance to further measures intended to extend benefits to non-complying drivers, where such additional standards would impose costs on persons who have already adapted their preferences, despite the fact that safety gains from passive restraint technology may be greatest with the residual class of least responsible drivers.

One class of traffic safety countermeasure that emerges from the empirical literature as exhibiting strongly positive safety effects is exposure-limiting countermeasures.²⁸ Exposure-limiting countermeasures do not seek primarily to change driver behavior on the highway but rather seek to exclude or limit

^{26.} P. 49.

^{27.} See Sunstein, Legal Interference with Private Preferences, 53 U. CHI. L. REV. 1129 (1986); Sunstein, Disrupting Voluntary Transactions, in MARKETS & JUSTICE (J. Chapman & J. Pennock ed. 1980)

^{28.} See Chapter 4, REGULATING TRAFFIC SAFETY, supra note 23.

certain classes of high-risk drivers from the highway. The evidence suggests fairly unambiguously that accidents are significantly reduced by measures such as increasing the drinking age, increasing the driving age, imposing night-time curfews on young drivers and otherwise adopting graduated licensing regimes for first-time drivers, confronting high-risk classes of drivers with high insurance premiums, and imposing license suspensions on severely deviant drivers. At one level, of course, the effectiveness of exposure-limiting countermeasures is intuitively obvious: one certain way of reducing traffic accidents to zero is to exclude all drivers from the highway system. We would all, of course, recognize that the costs of such an over-inclusive countermeasure would vastly outweigh its benefits. The question that more finely targeted exposure-limiting countermeasures raises is similar: even if targeted on putatively high-risk classes of drivers, will costs outweigh what appear to be convincingly demonstrated safety benefits?

Again, familiar objections will arise. It will be argued that even targeted exposure-limiting countermeasures will be dramatically over-inclusive. While young drivers are disproportionately represented in the accident population, not all young drivers are incompetent or irresponsible. By categorizing drivers according to certain characteristics, such as age or sex, it will be argued that we offend individualistic notions of responsibility and that competent and responsible individuals within a population category are unfairly penalized, or "discriminated against," on account of their ascriptive characteristics. Opponents of such countermeasures will also argue that costs are distributed unequally across members of a particular group. A young person in a rural community for whom a car or truck is essential for transportation or work will face greater hardship than an urban resident with ready access to public transit. Finally, it will be argued that to the extent that these countermeasures are designed to protect persons from their own incompetence or irresponsibility, such countermeasures are motivated by an unacceptable degree of paternalism.

Thus, we are left with a severe dilemma in the formulation of traffic safety policy. Criminal sanctions are too under-inclusive to be widely effective, but increasing either apprehension or penalty levels offend notions of personal liberty and individual responsibility and culpability. While environment-oriented countermeasures, such as motor vehicle safety regulation, seem to have stronger positive safety properties than behavior-oriented countermeasures, the collective, non-individualized requirements imposed on all road users mean that the former respect individual autonomy even less than do sanction-based regimes. With respect to exposure limiting countermeasures, which arguably possess stronger positive safety properties than the alternative classes of countermeasures, objections to over-inclusiveness and disrespect for notions of individual responsibility and autonomy will be at their most intense. This result is in part because

the restrictions entailed will often be more disabling than those typically entailed in the other two classes of countermeasures.

These tensions are evident in areas other than traffic safety. For example, in the case of gun control, there is a wide divergence in approach between Canada and the United States. Canada has consistently for over 100 years concentrated on curtailing exposure through rigorous licensing laws. Many jurisdictions in the United States, on the other hand, give most individuals substantial freedom to own firearms and concentrate on controlling individual behavior through the use of criminal sanctions. Partly as a result, per capita handgun death rates in the United States are twenty times as high as in Canada. In 1979 there were fewer than 60 homicides committed with handguns in Canada, whereas in the same year there were over 60,000 handgun homicides in the United States.²⁹ The National Rifle Association contends that government should constrain not the gun, but rather the individual with the gun. Similar logic underlies the "nut behind the wheel" approach to highway safety that concentrates on influencing individual behavior to the exclusion of other regulatory strategies.

Normative and hence political objections to major movements away from individual driver-centered sanctions, even though these appear to be the least effective class of countermeasure, will probably ensure that future debates over traffic safety policy remain mired in a murky middle ground where scientific evidence competes with quite different currencies in shaping the normative criteria of policy choice. In this unholy brew of scientific controversy and ambiguity, and normative conflict between values of individual autonomy and social welfare, the political system in the first instance and the legal system thereafter cannot avoid mediating these conflicts. It is difficult to be sanguine about the coherence or consistency of likely policy outcomes.

This is not a problem peculiar to the NHTSA saga. More generally, it is also not primarily a problem about competing positive theories of regulation. In the final analysis, *The Struggle for Auto Safety* is not really about positive theories of the demand for and supply of regulation, although it exposes deep deficiencies in our understanding of that question. The book really is about two themes which it emphasizes much less: deep deficiencies in our scientific knowledge about the positive impacts of regulation, and deep ideological and normative conflicts between fundamental values of individual autonomy and social welfare. My only disappointment with this superlative book is that these latter two themes were not more strongly developed.