
Review Essay

Regulation: Standard Setting and Enforcement

Bridget M. Hutter

Ross E. Cheit, *Setting Safety Standards: Regulation in the Public and Private Sectors*. Berkeley: University of California Press, 1990. 311 pages.

Jerry L. Mashaw & David L. Harfst, *The Struggle for Auto Safety*. Cambridge, MA: Harvard University Press, 1990. 285 pages.

Jeremy Rowan-Robinson, Paul Q. Watchman, & Christine Barker, *Crime and Regulation*. Edinburgh: T&T Clark, 1990. 350 pages.

The use of the law to regulate business and industrial activities has been a feature of 20th-century life in Western industrial societies. Yet it is only in recent years that this form of legal and social control has become the subject of academic attention. Much of the early work on regulation has followed in the tradition of sociological and criminological studies of the police, in particular ethnographic studies of the regulatory enforcement official at work. As a result we have an increasingly sophisticated knowledge and understanding of the enforcement of regulatory law. But other regulatory arenas are only just beginning to attract academic interest, notably the areas of regulatory policymaking and the impact of regulation upon business and industry. In many respects this is not surprising, for these are less visible and less accessible areas of regulation than the work of field-level bureaucrats, the study of whom has already laid the foundations for a deeper understanding of the

I am grateful to Joe Sanders for his helpful comments on an earlier draft. Address correspondence to Bridget Hutter, Research Fellow, Centre for Socio-Legal Studies, Wolfson College, University of Oxford, Oxford OX2 6UD, United Kingdom.

use of the law as a regulatory tool (Hawkins & Hutter 1990). The three books reviewed here extend our understanding of regulatory enforcement and expand our knowledge in the newer areas of policymaking and legal impact.

Crime and Regulation draws upon the fairly extensive literature on enforcement. The authors investigate the ways in which a number of regulatory agencies in Scotland use the criminal law as a means of enforcing regulations. This wide-ranging book relies heavily upon the work of other academics and contrasts with the meticulous accounts of policymaking in the United States offered by the other two books under review. Mashaw and Harfst examine in great detail 25 years of motor safety regulation in the United States. They trace the history of the National Highway Traffic Safety Administration (NHTSA) from the passing of the National Traffic and Motor Vehicle Safety Act of 1966, paying particular attention to the legal and institutional factors that shaped the agency's subsequent struggle for auto safety. Ross Cheit widens the discussion with a comparison of public and private standard setting, the aim being to evaluate how well each sector regulates safety. I will consider the substance of each of these books and then turn to a number of themes which are of particular interest.

I. The Books

Regulatory Enforcement

Given the wealth of data emerging about regulatory enforcement from around the world, the opportunities for writing a book which gives a broad, yet sophisticated, overview of the literature and general enforcement patterns are plentiful. Likewise the idea of bringing the general literature to bear upon the regulation of a specific industry or location is potentially fascinating. Unfortunately the authors of *Crime and Regulation* have missed these opportunities and have not maximized the potential, producing instead a superficial book which does not do justice to the work it draws upon.

None of the five areas of regulation chosen for study (pollution, conservation, consumer protection, safety, welfare, and revenue collection) are dealt with adequately. A topic within each of these areas is selected for discussion, presenting a confusing account to readers not already familiar with the topic. Noise pollution, for example, is one of the topics accorded most discussion in the pollution category, but arguably this form of pollution is not representative of the types of pollution normally dealt with by pollution control agencies, such as atmospheric and water pollution. Unlike the large majority of other types of pollution, noise pollution involves enforcement

officials in the regulation of individual householders rather than the regulation of organizations and industries. This process often involves the agency in a rather different enforcement approach than might otherwise be adopted, partly because the official is unlikely to have a long-term established relationship with the alleged offender (Hawkins 1984), partly because the situation is reactive and complaint oriented (Black 1971), and partly because officials are sensitive to the fact that the situation is likely to involve a dispute between neighbors (Hutter 1988). None of these subtleties are apparent in this book.

The authors of *Crime and Regulation* found, in line with so many other studies of regulation, that the criminal law is not widely used in regulatory control in Britain (Carson 1970; Hawkins 1984; Hutter 1988; Richardson et al. 1983; Vogel 1986). Indeed they argue that the criminal law appears to play a much less significant role in enforcement than Parliament may have intended. However, their analysis is rather superficial. Certainly conflict and even accommodation theories of regulatory lawmaking would challenge the presumption that Parliament intended a larger role for the criminal law. Rather, these theories suggest that contradictory features were intentionally introduced into public welfare legislation. This was achieved either through a conspiracy by a dominant class or alternatively through a process of accommodation between conflicting interest groups (Carson 1974; Gunningham 1974; Hutter 1988; Paulus 1974). Indeed the authors recognize that variations in prosecution rates are related to such factors as the way in which the legislation is framed, the nature of criminal liability, the type of sanctions available, and the level of penalties available—all matters over which the legislature had and has some control. Yet, they do not probe further and ask why the law has been framed in the way it has, nor do they refer to the existing debates about the intentions of the legislature in framing regulatory legislation in Britain.

In their concluding chapters the authors ask how far it is possible to develop a predictive model which would enable legislators formulating an enforcement regime to select an optimum mix of statutory characteristics to promote the goals of the legislation. The discussion seems to assume that lawmaking is a much more rational activity than is testified to by numerous authors, including the other two books under review. The nine-point list offered by Rowan-Robinson et al. might nevertheless prove useful to policymakers, but only in the context of many other issues, some of which are discussed in the more sophisticated analyses of policymaking and standard setting offered by Mashaw and Harfst and Cheit. Those already familiar with the area will find little in this book that is new; those unfamiliar with the topic may find it a confusing introduction.

Regulatory Policymaking

Policymaking is one of the areas of regulation which until recently has received scant attention. Mashaw and Harfst begin to chart the territory and intricacies of regulatory policymaking with a very detailed study of motor vehicle safety regulation in the United States. The authors regard the National Traffic and Motor Vehicle Safety Act of 1966 as notable in two major respects. First, it represented an attempt to change the approach to motor vehicle safety from one which tried to modify driver behavior to one which had the objective of modifying the motor vehicle. Second, the act is viewed as an attempt to reform federal administrative regulation in the United States through the introduction of a new type of federal regulatory agency concerned with health and safety and particularly through the introduction of regulation by means of rule making. NHTSA's task, as defined by the 1966 act, was to promulgate rules that would force manufacturers to build vehicles that would better protect their occupants in the case of a crash. The regulatory standards adopted would become mandatory and would involve minimum standards of performance (rather than design). To this end Congress authorized an accident and injury research and test facility to help develop technological change. The authors chart the political, cultural, and individual efforts that enabled the passing of this legislation in the 1960s and that led in the first 10 years of NHTSA to a burst of rulemaking activities. They also follow through the decline in agency activity which occurred in the 1970s.

Mashaw and Harfst describe how, for example, standards took three months to prepare in the 1960s but by the mid-1970s they were taking several years. They attribute this delay to a combination of factors, including manufacturer resistance, technological uncertainty, and judicial review. Moreover, the type of rulemaking involved in promulgating specific rules as opposed to general standards required a high level of agency resources. The combination of judicial review and specific rules, which needed regular updating, placed burdens of data collection and proof upon the agency which it was hard pressed to meet. Although an accident and injury test facility was authorized in 1966, the funds for the establishment of such a facility were not allocated until 1972. Meanwhile the agency faced organized industry opposition. Policy and ultimately legislative changes followed.

At a policy level NHTSA tried to transfer the burden of testing and implementation of safer designs from the agency to industry by means of performance-based rules. Legislative changes, however, placed other burdens on the agency. The 1974 amendments to the 1966 legislation presented the agency

with unclear and even contradictory messages compared to the original act. While these amendments strengthened NHTSA's enforcement powers, they also led it to adopt a reactive rather than a proactive role. This was most especially through the introduction of recall provisions which gave owners the right to have defective motor vehicles repaired by the manufacturers. Mashaw and Harfst explain that this did not represent any significant ideological or economic burden on industry; in fact they believe that it led to the abandonment of the agency's safety mission. The agency was also made to justify its safety rules in terms of cost-benefit analysis. "Social consciousness," argue Mashaw and Harfst "was rapidly being replaced by 'cost consciousness'" (p. 123). The cost of motor vehicle safety standards became the cause of political concern in the economic context of increasing inflation. The 1974 legislation, explain Mashaw and Harfst, did not protect the agency from the demands for regulatory cost analysis.

The authors place these legislative changes in the context of changes in the political climate of the United States. They point to a greater emphasis in the 1970s upon "deregulation" as opposed to "regulation" and a culture which emphasized "private rights" and "individual liberties" as opposed to state-imposed regulation and the 1966 faith and reliance upon expert social control. Indeed, Mashaw and Harfst go so far as to claim: "The shift in emphasis from rules to recalls seemed to signal a reorientation of auto safety regulation from science and planning to crime and punishment" (p. 111). Nevertheless, it is to the legal culture of the United States which Mashaw and Harfst turn for an explanation of the primary reasons for the failure of the legal transformation attempted by the 1966 legislation. Regulatory policy was subject to judicial review, which affected interests could mobilize. The courts were generally not sympathetic to the use of specific rules. They preferred the guidance of the general legal culture in the United States, namely, adherence to the principles of comprehensive rationality. Nevertheless, despite the primacy of the "legal culture" hypothesis, Mashaw and Harfst embody it in the context of American political culture. In the last analysis they conclude that the legal changes and resultant regulatory policy attempted by the 1966 National Traffic and Motor Vehicle Safety Act may have been doomed to failure, largely because of an American culture that emphasises risk taking above safety, freedom above regulation, and a political system where the short term is more important than cooperation and long-term strategies.

Public versus Private Standard Setting

In a fascinating departure from the existing literature, Ross Cheit's work *Setting Safety Standards* compares public and private standard setting, that is, those standards set by such organizations as trade associations and professional societies. The emphasis in the worldwide literature to date has been upon the activities of national or local government agencies. Indeed, if the subject of private regulation has been addressed at all, it has typically been dismissed as irrelevant or secondary to the state's regulatory system. Cheit, however, challenges this dismissal. In particular he argues against the idea that any single theory, such as capture theory, fits all forms of private regulation. In demonstrating his argument and discovering the complexities of standard setting in these varying systems, Cheit pays particular attention to organizational differences between the two sectors and the external influences upon them. Four pairs of case studies form the basis of his substantive discussion. In each case study (grain elevators, aviation fire safety, woodstoves, and unvented gas-fired space heaters), both the public and private sectors in the United States have set safety standards.

Analysis of the four pairs of case studies revealed a number of patterns that tend to differentiate the two sectors from the moment of deciding to intervene through the standard-setting process to the fate of the standards. Cheit found that differences appeared in the timing of interventions. Whereas the private sector tended to intervene early, often in anticipation of problems, the public sector tended to be reactive and only to intervene when it was clear that a problem existed. However, once activated the public agencies expected their standards to come into effect at an early date, whereas the private sector preferred a lead time for the standards to take effect.

The private standard setters had more technical know-how than those in the public sector, who tended to be generalist lawyers or compliance officers. The public sector, however, had much better information about real-world experience than the private agencies. The two sectors varied with respect to applied research and development, but the public agencies tended to have better information of this type.

Major differences seemed to exist in the range of solutions proposed by the two sectors. In particular, Cheit discerned philosophical differences between the two spheres. The public agencies tended to be paternalistic and to err on the side of safety. To this end they were prepared to force technological change or consider operational controls or even the prohibition of dangerous products. Generally they were optimistic about the possibilities of changing behavior. The private sec-

tor, however, operated according to a rather different set of assumptions. For instance, there was a tendency to assume full compliance with manufacturers' instructions on the part of consumers and a cynicism regarding either the desirability or the possibility of changing behavior. Technology was regarded as a constraint, and technical performance standards were preferred to operational controls. The rules of evidence employed by the two sectors also varied, with the public sector regarding cost-benefit analysis as important (their tendency being to underestimate costs and overestimate benefits), whereas the private sector rarely engaged in such analyses, preferring instead to defer to professional judgment. The way in which these standards evolved also varied, with the public sector tending to set "one-time" interventions while the private sector revised their standards through either continuous or periodic review.

It is important to emphasize that although Cheit did discern broad differences between the private and public sectors, these were general tendencies and this author's strong message is that no simple generalizations are possible. Certainly Cheit is reluctant to claim that one sector is better than the other, although he is prepared to note a tendency for the private sector to be "too lax" and the public sector to be "overly strict" in its standard setting. But this tendency varies. In some cases, notably that of aviation safety, the private sector is stricter than might be expected, certainly stricter than the public sector. "Capture" type theories, it is argued, are too simplistic to explain what actually goes on. Indeed, it might be observed that the value of studies such as those by Cheit and Mashaw and Harfst is that they systematically explore the details and complexities of what does "go on." So many of the simplistic theories they find lacking are often supported by "armchair theorists" who conveniently ignore or do not see the need for empirical evidence.

Cheit explains the differences between private and public regulatory standard setting with reference to two main areas of variation. The first embraces differences in organization and regulatory philosophy between the two sectors and the second refers to regulatory environment. Within the first area Cheit discerned the role of *organizational self-interest* and *professional ethics* as being most important. Organizational self-interest varied according to regulatory environment. For instance, the testing laboratories, which often set the standards for the private sector, could not afford to lose industry support; hence it was perhaps not surprising that they did not consider banning products and favored the phasing in of standards. Cheit also found that there were distinct ways of thinking about problems which he relates to the professional ethics of the personnel employed in each sector, although again he cautions against too broad a

generalization, such as the claim that all members of a profession adhere to the same ethic. In the private sector he explains the emphasis on technological solutions in terms of the prevailing engineering ethic, that is, an ethic which is essentially technical in orientation; which “assumes” consumer compliance with manufacturer instructions; and which does not consider changing behavior as relevant to its remit. Hence technological solutions are sought and evidence that they work is wanted prior to their implementation. In the public sector lawyers were more important, so, argues Cheit, an “enforcement ethic” dominated. This ethic was legalistic, favoring rules and aiming for total compliance.

In some respects the broad trends identified by Cheit do seem to fit with the general stereotypes one would expect of the two regulatory sectors. Those cases which deviate from these broad generalizations most clearly expose the forces which seem to underlie the policymaking process. Cheit’s focus on the *regulatory environment* coincides with the work of Mashaw and Harfst, particularly in its identification of three prominent influences on the policymaking: politics, economics, and the law. Let us now consider these themes in more detail.

II. Influences on Policymaking

Political Factors

Cheit identifies political pressure as an important influence, especially upon the public regulatory agencies which reacted to public and political concern rather than initiating action themselves. Most particularly, these agencies and the public reacted to accidents. In the case of grain elevators, for example, the Occupational Safety and Health Administration (OSHA) reacted in the face of “intense political pressure to do something” following a number of very serious accidents. The Consumer Product Safety Commission (CPSC) became interested in unvented gas-fired space heaters following a petition from a public interest group (the petition itself being prompted by a serious accident). The example of aviation fire safety also highlights the relationship between political pressure and accidents. The political pressure surrounding air crashes is considerable, and it is usual for formal regulations to follow a serious accident in this industry. Political pressure influences both the public and private sectors, and the industry typically sets stricter standards than the Federal Aviation Administration (FAA), partly, argues Cheit, because aviation safety engineers normally rely upon significant safety margins. Cheit points out, however, that this emphasis upon accidents is limited: “Accidents precipitate strong political pressures for regulatory

change, but they provide little factual basis for making meaningful improvements" (p. 75).

Cheit thus asserts that the more limited role of public outcry in the private sector can lead to a more thoughtful approach to standard setting. Doubtless great benefits to accident investigation exist, but, as Cheit indicates, costs also cause these investigations to divert resources from routine work. In many cases this diversion may be short and temporary, accounted for in everyday work plans; but when a major disaster occurs, accident investigation and its aftermath may consume considerable amounts of inspectorate time (see Department of Transport 1989:v; Hutter 1992). Undoubtedly a sliding scale of costs and benefits is used in this area, and in some cases a more considered approach to accidents is to be advocated (see Hutter & Lloyd-Bostock 1990).

Some areas are, of course, more sensitive to public opinion than others. Certainly passenger transport seems to be especially affected by public opinion. Railway safety in Britain has historically been very reactive in its orientation, with much of the safety legislation on the railways being the result of accident investigation (Hutter 1992). To the extent that public transport systems fear a loss of passengers and hence revenue as the result of accidents, incentives for the industry to self-regulate are apparent. But it is possible that their fears are overestimated. Cheit cites the example of aviation as being most accident sensitive among the cases he studied. The traveling public may have no easy substitute for public transport. Theoretically, rail commuters into London could catch a coach or use private cars for their daily journeys to work. But in practice this is not so easy. Coach travel would obviously depend upon a sufficiently rapid service being available, and car travel carries its own costs, not least the higher probability of accidents than rail travel. It is possible that even major accidents do not deter large numbers of passengers. If economic self-interest does not explain many regulations, this underlines the sensitivity of both public and private agencies to moral and political persuasion that they should adhere to particularly stringent safety standards.

Cost-Benefit Analysis

The rise of cost-benefit analyses, identified by Mashaw and Harfst as being partly responsible for the 1970s' changes in the policies of the NHTSA, was well underway and required by law for the public agencies Cheit studied. The private sector, however, rarely undertook or considered cost-benefit analyses in its policymaking, although it was sensitive to these issues. Mashaw and Harfst indicate how industry used cost-benefit analyses to

fight regulations. In the case of grain elevators, discussed by Cheit, cost-benefit analyses came to dominate the debate. The public agency involved, OSHA, was under great pressure to take account of the economic impact of their proposals while the industry opposed the standards OSHA proposed to introduce. This example highlights the potentially very high costs of cost-benefit analyses. In this case several firms of costly consultants were employed by both sides without achieving any clear-cut consensus.

The whole subject of cost-benefit analysis is riddled with difficulty. Not surprisingly the costs of the rules are often easier to estimate than the benefits. It is sometimes impossible to calculate in any meaningful way the number of injuries prevented by rules and enforcement activity. Given this uncertainty, the balance to be struck between costs and benefits is affected by regulatory philosophy and regulatory environment. To the extent that he could detect any general trends, Cheit found that the public agencies tended to overestimate the benefits and underestimate the costs of standards whereas, to the extent that they did anything, private agencies rarely underestimated costs but could overestimate both the costs and the benefits. Cheit highlights the way in which cost-benefit analyses may be manipulated to produce desired outcomes. The case of aviation fire safety is again especially interesting. This is because a political culture which emphasizes safety takes precedence over cost in both the public and private spheres. But it is only the public agencies which have to justify their actions in terms of cost. Cheit contends that since regulations in the area of aviation safety can seldom be justified in economic terms, the FAA uses favorable assumptions in its cost-benefit analyses in order to make the economic case look convincing.

The Law

The law is a third powerful external influence over the standard-setting behaviors of both the public and private sectors. Like Mashaw and Harfst, Cheit identifies judicial review as a major significant influence upon the public agencies, whereas liability legislation is identified as the dominant legal force over the private agencies.

While legal culture is attributed a position of great importance in these analyses, its effects are not discussed in detail. From a cross-cultural perspective, it would be interesting to know more. A growing enforcement literature suggests that national regulatory patterns may be rather different from each other and it has been suggested that different sociolegal cultures contribute to this difference (Kelman 1981; Vogel 1986). But we still await a detailed analysis. Do nations have distinc-

tive legal cultures which influence the whole legal process, beginning with the earliest definition of a problem, and ending with the evaluation of the impact of any legislation which may be enacted in response to it? How do national legislatures differ in the ways they respond to particular problems? What sorts of theories seem best to explain the intentions of the legislature in regulating industrial and business activity? Only when we know about these issues can we hope to disentangle the effects of national legal cultures from the effects of the activities and organizations subject to control.

A rich data source for such studies must be the increasing number of international attempts to regulate transnational problems, such as environmental pollution. In these settings national legal norms are thrown into sharp relief as decisions are reached (or fail to be reached) concerning the precise problems to be tackled, the ways in which the law may be best used to help alleviate and remedy these problems and the most appropriate ways of implementing any resultant legislation. Within the European Community, for example, widely divergent regulatory cultures flourish, ranging from those (such as Great Britain) in which broad, flexible legal rules are favored to cases (like the German example) in which very precise rules tend to be enacted. In the former regime policymakers and enforcement officials are accorded great discretion; in the latter, the discretion of the agency is much reduced. We still do not know the role played by these national differences in international efforts at regulation.

Policy Implications

Cheit found that the interaction between the public and private sectors varied. In two of the cases he examined, those of grain elevators and aviation fire safety, the standards were developed independently within each sector whereas in the cases of woodstoves and unvented gas-fired space heaters the standards were deliberately intertwined by the law. In the conclusion to his work Cheit considers how the two sectors could interact more effectively to promote safety goals. Greater communication between the two sectors is possibly an obvious point but one which nevertheless needs emphasizing and repeating. He strongly advocates complementary roles for the two sectors. The public agencies should concentrate on things that the private sector does not do, such as forcing technological innovation and developing safety rating systems. He also suggests that regulators should explore alternative policy instruments such as workers compensation schemes and insurance premiums and requirements. A particularly important role Cheit identifies for the public sector is that of collecting infor-

mation about what happens in the “real world” and undertaking applied research so that both sectors can make decisions grounded in evidence. In addition, the government could consider other ways in which it could act to facilitate the efforts of both sectors such as changes in the law and changes to the education of engineers.

Throughout his book Cheit emphasizes the complexities involved in the regulatory process. Indeed, this must be a central message of these works on regulatory policymaking. They chart the complex interaction of a variety of factors and contexts upon each regulatory process, revealing how policy is negotiated and socially constructed rather than based upon straightforward and predictable criteria. The role of science in the regulatory process exemplifies this complexity.

The Regulation of Science

Throughout this review we have been considering in one form or another the regulation of science and technology. Yet it is significant that scientific factors do not figure as major explanatory factors in any of the works under consideration. Although the scientific and technological lobbies are identified by Mashaw and Harfst and by Cheit as significant lobbies, they tended to be related to idealism about the solutions which science and technology could offer and in the cold light of day were overcome by other concerns such as the political, economic, and legal influences already discussed. Indeed, science and technology emerge as matters for negotiation in just the same way as do the apparently “hard data” provided by cost-benefit analyses.

Science figured prominently in the passage of the National Traffic and Motor Vehicle Safety Act (1966), which was partly explained by Mashaw and Harfst as scientific intelligence triumphing over commonsense impressions. The act came about during a period of faith in science and technology when, for example, the United States made great strides in space exploration and expected that this expertise could be successfully applied to everyday issues. But, as we have seen, technology was not forced forwards by motor safety regulation. By 1974, argue Mashaw and Harfst, a change of political climate led to a change in direction for auto safety regulation, “from science and planning to crime and punishment” (p. 111). The 1974 changes were driven by a “populist” impulse which, argue Mashaw and Harfst, serves to underline that political intelligence is at least as important as scientific data and analysis.

Cheit also found that science plays very little part in the development of standards. In the case of grain elevators, for instance, he found that the role of science in the private sector

standard setting was minimal. The most serious problem associated with grain elevators was that of explosions. This, like many other examples, was a complex problem involving so many interacting and changing variables that scientific certainty was impossible. The resultant standard was thus a negotiated consensus between competing views about the cause of the problem and competing views about the appropriate technological solutions. With reference to the standards adopted by industry, Cheit writes: "In each case, the number is an admittedly arbitrary one, based on the consensus of committee members as to what constitutes a reasonable requirement" (p. 49). The public agency's (OSHA's) search for a standard also referred little to science. Political influences predominantly influenced its decision making. In the case of woodstoves, aviation fire safety, and unvented gas-fired space heaters, the public regulatory agencies involved lacked a technical understanding of the problems they were regulating. Very little information was available on these subjects, and in the public sector scientific evidence did not support some of the provisions passed.

The experience of the private sector was not so very different. The cost of experiments and research was prohibitive and led to a reliance on guesswork and the professional norms and judgment of engineers. As Mashaw and Harfst observed in connection with auto safety, even though the need for research facilities may be recognized, the funds for them are not necessarily forthcoming.

Rowan-Robinson et al. also report minimal dependency upon science and technology. They note, for example, that in the enforcement of noise pollution controls noise meters were relied upon less than subjective judgments. This reliance, of course, would depend upon whether or not legal proceedings were being considered; for if they were, meter readings would form an important part of the evidence. Likewise, Scottish environmental health departments would need to "prove scientifically" that the equipment and utensils used by ice cream manufacturers and retailers were unsatisfactory before these departments could initiate legal action against those not complying with the regulations.

But, of course, the large majority of such cases do not reach the courts in Britain. While it may be the case that scientific evidence is not sought in these cases, my experience is that inspectors will try to convey the image of scientific judgment, however crude the equipment or tests they may have at their disposal. Scientific knowledge and technical equipment may be used by officials to establish the existence of a problem and to support the agency or individual inspector's diagnosis and solution. In both cases it serves as a symbol of the agency or individual inspector's authority. To some extent the success of this

approach depends upon the expertise of those subject to regulation. If the regulated are not particularly knowledgeable, then inspectors may adopt a “blind them with science and technology” approach. Certainly technical equipment can be used to bring home to the regulated that an offense has been committed.¹

Where inspectors and regulatory agencies encounter specialists, they will more carefully scrutinize the specialists’ assumptions and evidence used to make their decisions. But the degree of scrutiny may depend partly upon the degree of trust the regulated have in the agency. It is perhaps telling that Cheit found that the guesswork upon which private agencies based their standards was often “disguised by the exactitude of scientific language.” This finding suggests that the creation of an apparently scientific aura was perceived as a plausible and successful rationale for the agencies’ decisions. It is also indicative that both American standard setters and British enforcement officials feel they should be presenting their decisions as scientifically based, despite the fact that the regulatory game is being played in arenas where what is taken to be “scientific” knowledge is socially constructed and negotiated according to a variety of political, economic, and legal criteria.

III. Conclusion

The study of regulation touches upon areas of vital importance to our understanding of the relationship between law and society. It is important that detailed empirical work continue so that better theories about regulatory law, organizational deviance, and compliance (to name but a few areas) develop. Moreover, we need to refine the concepts we use. It is not sufficient, for example, to claim that the level of legal activity which regulatory agencies initiate indicates and defines noncompliance. Many offenses do not come to the agencies’ attention. Moreover, regulatory officials (especially in Britain) do not initiate legal action in all of the cases of noncompliance which do come to their notice. We need to examine how different parts of the regulatory system and different actors within it perceive compliance. We also need to recognize that the meanings attaching to concepts such as compliance, noncompliance, policymaking, and sanctioning may vary both contextually and over time.

Clearly much work needs to be done, especially that of the type undertaken by Mashaw and Harfst and by Cheit. National

¹ The use of “expert” status and technical equipment to establish authority is a technique well developed by the medical profession. Oakley (1980:16), e.g., explains how doctors in maternity consultations use “technical language as a means of keeping the patient in her place.” She also explains the way in which technical equipment, such as ultrasound, is routinely used to legitimate so-called medical expertise.

and international studies of policymaking both across time and across the public and private sectors can only enhance our understanding of the significant factors at play in regulatory policymaking. We need to know more about the deliberations of the legislature and agency staff and about the interactions between policymakers and those enforcing legislation and policy at ground level. How is law and policy translated into action? Do particular forms of law and policy lead to particular forms of enforcement? We need to research further whether or not structural position within the regulatory process influences perceptions and actions. If so, what is the impact of this? In short, does it matter?

Additionally, our knowledge of the impact of regulatory legislation, policymaking, and enforcement is still rudimentary. We simply do not know how much those subject to regulations know about the rules and standards to which they are subject, nor how much they understand about the regulatory apparatus charged with implementing these controls. Moreover, what are the incentives and disincentives to compliance?

We particularly need to have more in-depth studies of policymaking and the impact of regulatory legislation, policies, and enforcement. Comparative studies would be especially helpful in these areas and also with respect to the continuing study of enforcement. Cross-cultural studies especially will help us to understand more fully the influence of legal and political cultures upon regulation. Finally the international dimension is one that is of growing importance, both in terms of the spread of the legal regulation of business and industrial activities and for the insights it should allow into the workings of regulatory processes both nationally and internationally.

References

- Black, Donald J.** (1971) "The Social Organization of Arrest," 23 *Stanford Law Rev.* 1087.
- Carson, W. G.** (1970) "White-Collar Crime and the Enforcement of Factory Legislation," 10 *British J. of Criminology* 383.
- (1974) "Symbolic and Instrumental Dimensions of Early Factory Legislation: A Study in the Social Origins of Criminal Law," in R. Hood, ed., *Crime, Criminology and Public Policy*. London: Heinemann.
- Department of Transport** (1989) *Railway Safety: Report of the Safety Record of the Railways in Great Britain during 1988*. London: HMSO.
- Gunningham, Neil** (1974) *Pollution, Social Interest and the Law*. London: Martin Robertson.
- Hawkins, Keith** (1984) *Environment and Enforcement: Regulation and Social Definition of Pollution*. Oxford: Clarendon Press.
- Hawkins, Keith, & Bridget H. Hutter** (1990) "The Response of Business to Social Regulation in England and Wales: An Enforcement Perspective." Presented at Conference on Business Adaptation to Regulation, Ohio State Univ. (April).

- Hutter, Bridget M.** (1988) *The Reasonable Arm of the Law?: The Law Enforcement Procedures of Environmental Health Officers*. Oxford: Clarendon Press.
- (1992) "Public Accident Inquiries: The Case of the Railway Inspectorate," 70 *Public Administration* 177.
- Hutter, Bridget M., & Sally Lloyd-Bostock** (1990) "The Power of Accidents: The Social and Psychological Impact of Accidents and the Enforcement of Safety Regulation," 30 *British J. of Criminology* 409.
- Kelman, Steven** (1981) *Regulating America, Regulating Sweden: A Comparative Study of Occupational Health and Safety Policy*. Cambridge, MA: MIT Press.
- Oakley, Ann** (1980) *Women Confined: Towards a Sociology of Childbirth*. Oxford: Martin Robertson.
- Paulus, Ingeborg** (1974) *The Search for Pure Food: A Sociology of Legislation in Britain*. London: Martin Robertson.
- Richardson, Genevra, Anthony Ogus, & Paul Burrows** (1983) *Policing Pollution: A Study of Regulation and Enforcement*. Oxford: Clarendon Press.
- Vogel, David** (1986) *National Styles of Regulation: Environmental Policy in Great Britain and the United States*. Ithaca, NY: Cornell Univ. Press.