

The determinants of compliance with laws and regulations with special reference to health and safety

A literature review

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This report presents a review of the extensive body of socio-legal literature that exists to explain and understand the nature of compliance with regulation. It outlines how compliance has been seen in both academic and policy fields in order to describe and explain:

- (a) those themes important to assessing the determinants of compliance including the motivations for and interpretations of compliance behaviours;
- (b) how the literatures define compliance;
- (c) how scholars have identified the tools available to foster more effective regulatory compliance and enforcement strategies; and
- (d) those difficulties policy actors experience when seeking to achieve greater levels of regulatory compliance. The report draws extensively upon literature outside the domain of health and safety as a basis for understanding that area.

Socio-legal scholars have sought to triangulate the themes of regulation, compliance and enforcement to understand the deficits in achieving effective compliance behaviour. The report draws on that scholarship and in particular that relating to the topic of enforcement to provide insights into this sometimes neglected facet of policy-making. For reasons of space the report does not profess to provide a full exposition of the relevant literature but outlines those themes thought to be most relevant to understanding why compliance behaviour is not necessarily as comprehensive as might be thought.

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EXECUTIVE SUMMARY

Whilst there is a considerable literature on regulatory theory and practice, the nature of compliance (and in particular how better compliance can be achieved) remains a relatively under-developed topic. Many assume that after drafting the regulations, compliance will automatically ensue. Socio-legal scholars indicate that not only is the assumption erroneous and not substantiated empirically, but that compliance is not necessarily a logical consequence of regulatory efforts. Securing better compliance is in itself a difficult task.

The purpose of this Report is to review the literature on the topic of compliance. Providing a coherent explanation of legal compliance remains difficult in any area of law enforcement. Academics, particularly socio-legal scholars have long sought to explain this dilemma relevant to the enforcement of the criminal law. Compliance is never and can never be 100% given the uncertainties and resource implications associated with detection and proof, whether or not proceedings ensue. In the context of regulation it becomes even more problematic to understand the numerous factors that in combination lead to the enhanced compliance of those being regulated.

Socio-legal scholars have long known that compliance with regulation, its effect and the enforcement mechanisms associated with it, are a distinctive form to be distinguished from the treatment of crimes per se. The purpose of this review is to consider in the light of that literature,

- (a) a definition of compliance;
- (b) those factors important to assessing the determinants of compliance including the motivations for and interpretations of compliance behaviours the 'motors' driving compliance that engender compliance cultures and the tools available to foster regulatory compliance;
- (c) non-compliance and the effectiveness of different compliance and enforcement strategies;
- (d) how enforcement encourages compliance and how compliance behaviour influences enforcement allocation; and
- (e) compliance studies referring particularly to health and safety law and regulation.

The literature points to the existence of varying definitions of the term and that defining compliance can be viewed from the perspective of those being regulated or the regulatory agency. The concept of compliance has been expressed in the regulatory domain in a number of ways, and the literature identifies a number of themes important to assessing the determinants of compliance including the motivations for and interpretations of compliance behaviours. Further it points to recent trends in identifying the 'motors' driving compliance and links these to the tools available to foster more effective regulatory compliance and enforcement strategies.

The idea of compliance is used by socio-legal scholars in particular, to account for fluidity in the regulatory process and the variety in its application in different domains. "Compliance" is a term used in understanding regulatory effectiveness. However, what amounts to regulatory compliance is rarely defined. Standard dictionary definitions and a good deal of the literature make tacit assumptions regarding compliance behaviour. It remains a relatively unrefined concept. Two themes can be drawn from the literature in articulating what compliance means. These are as follows:

- The extent to which the regulated community complies with regulations and its reasons for doing so;

- The form of enforcement styles used by agencies to secure regulatory compliance. These may be punitive strategies or more accommodative forms that include persuasion, education and the provision of information. In practice, regulatory agencies have been found to use a combination of the two styles.

The regulated community's perception of compliance does not necessarily fit with that of the regulatory agency. Rather, empirical evidence suggests that those being regulated may perceive compliance in terms of doing what the agency may tell them to. The notion of compliance behaviour is further complicated by the fact that agencies themselves are heavily reliant upon field inspectors to pursue enforcement and so the actions that they take are subject to considerable variation.

Compliance may also be seen as a form of effective regulatory activity.

One central theme in the compliance literature distinguishes regulatory enforcement styles, primarily the punitive or coercive methods of enforcement from more co-operative forms. The notion of law enforcement tends to be context dependent and has a number of objectives. Understandings distinguish the use of formal legal processes and sanctioning from the adoption of informal strategies. Empirical research emphasises that rather than pursue formal and often deterrence-based approaches, informal negotiated processes are used by regulators in the field to repair damage and minimise further future contraventions. These strategies are not necessarily distinct but instead are seen as part of a scale of compliance. The compliance studies identify that prosecution tends to be reserved to cases where the offence is seen as more serious than usual and/or there is evidence of persistence and intention in the non-compliant conduct. Further models of compliance can be identified in the literature.

Understanding compliance in deterrence terms is highly problematic given that regulated communities rarely if ever acquire a clear or comprehensive understanding of the regulations applying to them. For this reason scholars have sought to explain the reasons for regulatory compliance in terms other than a fear of sanctioning or punishment. They have looked in particular at factors including:

- the design of the regulations;
- the activities and the organizational culture of the regulatory agency and its field inspectors;
- the general context (and especially the political and economic environment) within which regulations are promulgated;
- the type and visibility of violations, in addition to the actions of those being regulated so as to understand compliance behaviours.

What becomes apparent is a far more complex and varied series of factors that inform compliance, many of which derive from matters other than the actions of the regulated community.

Businesses can vary widely in their response to regulation and a series of motivational reasons may exist for non-compliance including;

- disagreement with the regime;
- incompetence (in the sense of being unable to meet the standards set), and
- amoral calculation.

Compliance behaviour can be seen as more varied and subject to more complex motivations than has historically been thought. In addition, the context within which the enterprise carries out its activities and its interaction with other businesses can heavily influence compliance levels. Rational self-interest and profit maximisation are not the sole motivations for compliance, nor is an aspiration to comply with the law. Research indicates that it is overly simplistic to assume that

firms (whether as management or individuals) make calculations as to whether to comply with regulations solely on the basis of economic cost or profit maximisation. Reputational effects both within the wider business community and more generally, can strongly influence compliance behaviour. Similarly the penalties imposed for default and perceptions regarding the appropriateness or legitimacy of the regulations themselves can inform compliance. An extended academic and policy literature exists to emphasise the difficulties small firms encounter in complying with regulation. However, industry size and structure are not necessarily a strong determinant of compliance (contrary to some assertions). Of more significance in the literature are the operating context of the enterprise and the nature of its activities. The responses of the local community and stakeholder groups can in certain contexts also be relevant.

Both the form of enforcement activity and the design of regulation will heavily influence compliance behaviour.

- Inspection and enforcement styles (whether punitive or more accommodative) in addition to the penalties imposed will shape behaviour, with the activities of the field inspector often being key to raising compliance commitment;
- Self-regulatory and responsive regulatory forms are often very important to engendering compliance where the business community perceive a strong role for and ownership of regulation and the response to it;
- The literature identifies a strong role for innovation in regulatory design and enforcement strategies so as to enhance compliance, with regulation and enforcement becoming more plural and involving both state and non-state actors. In certain circumstances it is inaccurate to assume that enterprise will merely undertake formalistic adherence to regulations. It may instead exceed the expectations of the regulatory agency and indeed the regulatory rules themselves. This is particularly so where technological innovation can leave the regulatory agency less well informed than the regulatory community and other pressures exist, giving rise to strong motivators for enhanced compliance behaviour.

Compliance and enforcement strategies that are cost effective and set feasible goals, through the adoption of efficient and fair regulation are more likely to enhance compliance behaviour. The HSE literature provides significant insights into compliance behaviours but little of this is focused towards articulating why certain approaches may be more effective than others.

The primary focus of much of the literature on compliance is to describe and explain the nature of adherence to the regulatory rules or governmental objectives by those regulated. Compliance practices may be better understood by reference to the broad environment and the regulatory context within which those subject to regulation carry out their enterprises. These factors include but are not limited to:

- The design and source of the regulations
- the structure of the regulatory agency and its regulatory mandate;
- the enforcement activities of its staff;
- business motivations for compliance (including the sanctions imposed and firms' perception of the legitimacy of the regulations) and the structure of the firms being regulated;
- the regulatory environment (including the economic climate, industry size and structure, whether the interests of business converge with those of the regulatory agency, and the role of third party actors).

Variation exists among firms in their response to similar regulatory standards, and some will, contrary to simple economic models, institute compliance measures that go well beyond those required by legal rules.

The empirical socio-legal literature on compliance offers crucial insights into why certain regulatory approaches may work more effectively than others. Regulatory arenas are complex. Levels of compliance are variable and are influenced by numerous factors only some of which the regulatory agency can control. Each of the factors listed above will shape but not necessarily determine compliance levels.

INTRODUCTION

Providing a coherent explanation of legal compliance remains difficult in any area of law enforcement. Academics, particularly socio-legal scholars have long sought to explain the dilemmas surrounding the enforcement of the criminal law. Compliance with the law is never and can never be 100% given the uncertainties and resource implications associated with detection and proof, whether or not proceedings ensue. This issue becomes more problematic in the domain of regulation, where breaches may not be perceived as crimes in the strict sense by either the regulated community or indeed the wider public. Unlike the criminal law, regulation tends to be associated with the management of activity as opposed to its absolute prohibition and this leads to an inherent flexibility in the application and enforcement of regulatory standards. One way to approach this question, drawing heavily on socio-legal theory, is to use the notion of compliance. Central to the idea is the recognition that regulation, its effect and the enforcement mechanisms associated with it, is a distinctive form to be distinguished from the treatment of crimes per se.

Economists appreciate compliance very differently. Their models tend to treat organisations as rational actors with a full understanding of the costs and benefits of compliance. Even where more sophisticated models are adopted that deal with the existence of imperfect information and bounds on rationality, modelling compliance is highly problematic. As will be seen from the literature outlined below, translating understandings of the effects of compliance and related inspection and enforcement activities into simple metrics and deriving from these indicators of performance outcomes is a very difficult task. As with individuals, the behaviour of organisations is influenced by multiple factors, which together do not lend themselves to definitive predictability.

Socio-legal scholars have long known that compliance with regulation, its effect and the enforcement mechanisms associated with it, are a distinctive form separate from the treatment of crimes per se. The purpose of this review is to consider in the light of that literature, (a) a definition of compliance, (b) those factors important to assessing the determinants of compliance including the motivations for and interpretations of compliance behaviours the 'motors' driving compliance that engender compliance cultures and the tools available to foster regulatory compliance, (c) non-compliance and the effectiveness of different compliance and enforcement strategies, (d) how enforcement encourages compliance and how compliance behaviour influences enforcement allocation and (e) compliance studies referring particularly to health and safety law and regulation. Given that the literature links a number of these themes, the review will concentrate on the following:

- how the concept of compliance has been expressed in the academic and policy literatures¹ on regulation;
- those themes important to assessing the determinants of compliance including the motivations for and interpretations of compliance behaviours;
- recent trends in identifying the 'motors' driving compliance; and
- how scholars have identified the tools available to foster more effective regulatory compliance and enforcement strategies.

The review will address how scholars have sought to triangulate the themes of enforcement and compliance to suggest how compliance behaviour influences enforcement allocation. Specific reference will be made, where appropriate, to studies on health and safety law and regulation. The final section will critique some of the relevant literature more recently published by the Health and Safety Executive (the HSE) on the topic. It should be emphasised that much of the literature derives from domains other than health and safety. This is not necessarily problematic because more general theoretical scholarship has often informed policy practice in occupational health and

¹ *Focusing predominantly upon the HSE policy documents.*

safety and remains relevant to it. There is an extensive critique deriving from environmental and corporate law. This too provides many insights into the nature of compliance generally although not all of the empirical work is readily transferable to the particular domain.

COMPLIANCE AS A LENS FOR VIEWING REGULATORY EFFECTIVENESS

The idea of compliance is used by socio-legal scholars in particular, to account for fluidity in the regulatory process and the variety in its application in different domains. “Compliance” is a term used to understand regulatory effectiveness. It has a number of facets, and the term rarely equates to an absolute adherence to the legal rule. Instead, like regulation, compliance incorporates notions of tolerance and management of processes, so as to identify efficient and effective mechanisms of control.² In the section below a definition of compliance is offered and developed in the light of this literature.

DEFINING COMPLIANCE

A standard dictionary definition of compliance conjures notions of conformity – “the act or an instance of complying; obedience to a request or command” (Concise OED, 1990 quoted by Hutter, 1997, p.3). Many studies make the tacit assumption that compliance equates to complying with legal rules and no more. This does little to enhance an understanding of compliance practice or behaviour in regulatory contexts. This idea is mirrored in much of the policy literature with ‘compliance’ being defined with a degree of circularity, as a mechanism used to secure compliance with the law e.g. inspection or enforcement.³ Hence compliance is aligned with the behaviour of those being regulated. Equating compliance, however, with adherence to the law raises a number of issues. For example *who* is to determine whether compliance has occurred? Is this a subjective issue (and so one with which only the regulated community or the regulator is primarily concerned), or is it a question to be addressed by reference to more objective standards?

Although “a relatively unrefined concept” (Hutter, 1997, p. 4) the academic and policy literatures provide indicators of many of the underlying themes. Some scholarly sources adopt a tacit understanding of what is meant. Compliance is sufficiently malleable a term to encompass a range of activities and aspects of regulation including the act of enforcement of the law, the process of securing the underlying aims and objectives of regulations and the negotiation of regulatory outcomes. In comparison to the expansive literature on regulation, its treatment as a discrete topic remained less well developed (the work of Carson (1970) and Cranston (1979) being notable exceptions) until the 1980’s, when a body of predominantly empirical literature focusing on the nature of compliance emerged (Di Mento, 1986; Friedland (ed.), 1990; Hawkins, 1984; Hutter, 1988 and 1997).

The OECD (2000) has identified two distinctive strands in the literature:

- (a) the extent to which the regulated community complies with regulatory standards and its reasons for doing so, and
- (b) the enforcement styles used by regulatory agencies i.e. the strategies they adopt and those they *ought* to adopt (in terms of whether deterrence focused or based upon strategies of co-operation, persuasion and education should be preferred as the predominant enforcement style). This approach sees compliance as a distinctive strategy (most often persuasion-based, (Hawkins, 1984)) that regulators use to bring about adherence to the law.

² Hutter (1988, 1997, 2001), Hawkins (1984).

³ Hampton (March 2005); OECD (2004).

(a) The community being regulated

Compliance behaviour is defined commonly by reference to established regulatory standards, in the sense of compliance *with* something, most often legal rules. We know that those subject to regulation may find this difficult. They may not understand very well the regulatory provisions in detail (Hutter, 1988 and 2001) or if they do, they may (mis)interpret them for a number of reasons. In an empirical study of small to medium-sized enterprises undertaken for the HSE, Fairman and Yapp (2005) noted that for the firms themselves compliance equated to “doing all they were told to at an inspection, or advisory visit or other intervention”; adherence to the law (and this presupposes that they had a sufficient knowledge of it) had little relevance.⁴

(b) The regulatory agency

Compliance with the law needs to be distinguished from regulatory officials’ use of the law. It may result in securing policy objectives much broader than the legal rule whether or not in complete adherence to the legal provisions (Hutter, 1997). Here compliance can be viewed as a process. It relates to:

- the defining of ambiguous responses at policy and field levels;
- the process of detecting violations, and
- remedying (regulatory) problems (Reiss, 1984).

Only at its narrowest, is this compliance with the law.

COMPLIANCE AS EFFICIENT REGULATION

Compliance has been seen as an exercise in the efficient allocation of resources such that regulators concentrate resources effectively and target appropriately the worst offenders whilst simultaneously encouraging offenders to internalise the benefits of being ‘good’. (Scholz, 1984a, p.388). It has been said that,

Rules and standards tell people and companies how to behave, and public agencies and their employees control and of course react if people do not comply. The purpose is to make sure that people and companies behave in the way that has been politically defined as preferable. The ultimate goal throughout this process is: Compliance with the law without spending too many resources enforcing it—in other words efficiency. (Nielsen, 2006, p. 396).

Many different perspectives have been adopted to explain compliance, in varying contexts and at various levels of abstraction (ranging from policy formulation to the carrying out of inspections) often without drawing a clear distinction of the concept or its defining essence. At its broadest compliance encompasses much more than adherence to the law. Compliance has been defined in the academic literature as “a process of extended and endless negotiation” (Manning, 1988) and as “a complex process of defining responses to mandates that are often ambiguous” (Hutter, 1997, p.13). Fairman and Yapp (2005, p.491) define the concept as, “the negotiated outcome of the regulatory encounter”. These definitions are neither tied to enforcement nor do they necessarily invoke the use of legal process or quantitative or qualitative compliance with the law (Hutter, 1997, p.12).

In the policy literature, the OECD (2005, p.15) define the objective of compliance as being to

⁴ pp.2 and 49. Fairman and Yapp HSE Research Report 366 Making and impact on SME compliance behaviour: An evaluation of the effect of interventions upon compliance with health and safety legislation in small and medium sized enterprises. (2005).

“...influence positively the behaviour of the regulated community and make its members comply with environmental requirements. Voluntary compliance and reversal of an offence can be considered the main goal of inspection and enforcement. Punishment of the offender should be a secondary purpose.” (p.77).

The idea here is to identify potential problems (even if not the strict legal requirements) and provide guidance to improve performance. It is a reflexive approach with inbuilt mechanisms of feedback and learning with inspectors contributing to policy and legislative development. Compliance here equates to inspection, enforcement and proportionate business compliance.

In some circumstances the result may be over compliance where legal requirements are exceeded (Kagan et. al, 2003, pp. 52-3). Legal rules, used as regulatory tools may secure other ends in particular ‘best practice’ or indeed a ‘gold plating’ of the legal provisions. The Robens Report (1972) into Health and Safety at Work, noted,

“...[It] is not enough to think in terms of “ensuring compliance” with minimum legal standards ...the concept is too narrow and restrictive ... Inspectors should seek to raise standards above the minimum levels required by law” (1972, paragraph 211).

In summary,

- Compliance rarely (if ever) equates to complete adherence to the law;
- Compliance is a central organizing principle to understanding regulation and its effectiveness in the academic literature;
- Socio-legal scholars have developed critical insights into the nature and effects of compliance behaviour, in particular its use as a regulatory enforcement strategy;
- The notion of compliance may be interpreted differently by different regulatory agencies, as well as those being regulated.

Compliance practices can only be understood by reference to the broad context within which those subject to regulation carry out their enterprises. This is influenced by

- the broad regulatory context;
- the activities of regulatory agencies;
- the actual design of the regulatory rules or standards themselves;
- the behaviour and characteristics of those being regulated.

The empirical socio-legal literature on compliance as an enforcement strategy provides crucial insights into why certain approaches may work more effectively than others. This approach views compliance in terms of sanctioning and deterrence and as an alternative as a more accommodative form. The primary focus of much of this literature is to describe and explain the nature of adherence to the regulatory rules or governmental objectives by those regulated.

Compliance has been viewed as either process based or outcome oriented. Most commonly, as with Robens, these two perspectives merge.⁵ Adopting a variety of processes (including different enforcement styles) may secure more effective and compliant regulatory outcomes. This will be discussed in the section below.

⁵ Hopkins, 2005 argues that the effect of the general duties imposed under the Health and Safety at Work legislation is to impose not only substantive outcome oriented duties but procedural duties upon employers if they are to avoid the risk of prosecution.

COMPLIANCE AS A MODE OF ENFORCEMENT – THE COMPLIANCE LITERATURE

One central theme in the compliance literature distinguishes regulatory enforcement styles, primarily the punitive or coercive methods of enforcement from more co-operative forms. The notion of law enforcement tends to be context dependent and has a number of objectives. These may include deterring future infractions, (Reiss, 1984) or effecting punishment by delivering retribution or communicating disapprobation (Hawkins, 1984). Further, these understandings distinguish the use of formal legal processes and sanctioning from the adoption of informal strategies. Recognising compliance as an enforcement process has a long history deriving from empirical studies of the 1970's. Common enforcement practices are identified in varying regulatory contexts e.g. enforcement by the Factories Inspectorate (Carson, 1970), or consumer protection (Cranston, 1979). Compliance in this sense is characterised by more than a use of legal action and is closely allied to the adoption of informal practices, such as persuasion rather than a use of punishment per se.

Empirical research emphasises that rather than pursue formal and often deterrence-based approaches, informal negotiated processes are used by regulators in the field to repair damage and minimise further future contraventions. These strategies are not necessarily distinct but instead are seen as part of a 'compliance continuum' (Hawkins, 1991, p.428). By taking this approach researchers have been able to distinguish certain enforcement styles. Research on regulatory enforcement tends to characterise enforcement styles as taking two main forms. These are the accommodative (Richardson, 1983) or compliance strategy and that focused on sanctioning or deterrence (Hawkins, 1984; Reiss, 1984).

SANCTIONING OR DETERRENCE

This style is akin to a classical police style. It is variously referred to as a 'sanctioning', 'deterrence' or 'prosecution' approach and involves enforcement authorities. Its objective is to prohibit certain activities and where this fails, to seek out offenders and punish them for their wrongdoing' (Hutter, 1988, p.7). Prosecution is regarded as a central technique to secure compliance. Deterrence or sanctioning models are penal in style and emphasise the importance of prosecutions.

THE LIMITS OF 'DETERRENCE' AS AN EXPLANATION FOR COMPLIANCE

It had long been assumed that those regulated would comply with regulations only where it would be in their rational self-interest to do so. Hence, enterprises were perceived as amoral calculators that saw no moral or civic dimension to compliance. Law and economics scholars (e.g. Becker, 1968; Stigler, 1970) hold that businesses only comply with regulation requiring them to adopt costly measures, when they believe legal non-compliance will be detected and harshly dealt with. This view has been advanced to suggest that a heavily deterrence focused approach, imposing harsh penalties is required and that any less punitive approach is doomed to failure. By punishing breach in a severe way, compliance with the regulations would become the economically rational response (Pearce and Tombs, 1997).

Understanding compliance in deterrence terms is highly problematic given the existence of bounds on rationality (Simon, 1972) and the organizational constraints, on both regulatory agencies and enterprise. Emphasising deterrence posits that businesses have the capacity to act sufficiently rationally at all times to take note of the regulatory signals being given (Baldwin, 2004) and similarly that agencies are sufficiently efficient for deterrence to be effective. Framing compliance

in terms of deterrence is rarely possible and can be met only in the most limited of contexts (Scholz, 1997). Furthermore, the fact that stringent rules apply in principle does not necessarily correlate with enforcement practice (Kagan, 1989).

Empirical studies show deterrence theories to be largely unsustainable and a poor reflection of enforcement practice (Hutter, 1988 and 1997; Hawkins 1984 and 2002). Hawkins (2002) studied the Factory Inspectorate in the UK over a 15 year period and its successor bodies between 1983 and 1998. He reemphasises that whilst prosecution may be regarded as a method of formal enforcement, it is very much an exception rather than a rule. It was often reserved for serious, visible problems or persistent failures to comply (2002, p.41). Enforcement activity is significantly more complex, warranting a more nuanced approach to be taken if compliance practice is to be better understood. Compliance might be seen as the whole system of enforcement, both as a process to secure compliance with the law and as a series of enforcement styles primarily characterised by negotiation and a use of informal strategies (Hawkins, 1984; Hutter, 1988; Cranston, 1979).

ACCOMODATION OR COMPLIANCE

The compliance literature does not seek necessarily to impose a moral dimension to regulatory infractions.⁶ The objective is to move away from making moral judgements and instead to explain and understand the behaviour of regulated communities. The underlying objective, in contrast to that which predominates in the criminal sphere, is to punish the violation and not the *violator* (Hawkins and Manning, 1984). Prosecution may be regarded as a method of formal enforcement in contrast to the adoption of more informal approaches.

The second main style identified by researchers has been labelled an accommodative or compliance strategy of enforcement:

“...It is co-operative and conciliatory in style and its aim is to secure compliance through the remedy of existing problems and, above all, the prevention of others. Where compliance is less than complete the preferred methods of achieving full compliance are persuasive and educative. The use of formal legal methods, especially prosecution, is regarded as a last resort, something to be avoided unless all else fails to secure compliance...” (Hutter, 1988, p. 6).

The approach ascribes considerable importance to compliance as a concept because enforcement is seen as a mechanism to both remedy existing problems and to prevent others arising in the future (Hutter, 1997, p.14). The preferred strategies tend to be less than the pursuit of legal proceedings and favour co-operation and conciliation through a use of education, negotiation and persuasion. Many empirical studies of the jurisdiction focus on the compliance approach. They tend to emphasise the behaviour of regulated agencies and their approach to regulatory enforcement. Agencies have been found to adopt a style of enforcement characterised by negotiation, co-operation and bargaining (Cranston, 1979; Hawkins, 1984).

This is not to suggest that accommodative and co-operative approaches occur in a vacuum. They take place within the context of an application of legal rules. Hutter (1988) found that Environmental Health Officers' in England and Wales tended to adopt an accommodative style that could be further refined by reference to the adoption of persuasive or insistent strategies. Both persuasive and insistent strategies, “share the common end of securing compliance but differ about the stringency of the means to this end” (Hutter, 1997, p16). Persuasive strategies are characterised by accommodative approaches that seek to educate persuade, coax, etc. The use of informal

⁶ *Whether this is appropriate or not see Pearce and Tombs (1990).*

techniques often tied to long-term interactions between regulator and regulated, focus on educating and assisting the regulated industry. By contrast, the insistent strategy is less flexible and demonstrates a greater willingness to resort to legal action should demonstrable changes in behaviour within a defined period not be forthcoming. However, each has the primary objective of securing compliance rather than retribution (Hutter, 1997, p.16) even when using punishment or sanctioning.

Compliance studies identify that prosecution tended to be reserved to cases where the offence was more serious than usual and/or there was evidence of persistence and intention in the conduct (Carson, 1970). Adopting a compliance approach to enforcement is likely to be most effective where there is a real and credible threat of escalation to more severe sanctions. Hutter's (1997) study of the HSE during 1983-6 and the enforcement styles adopted by field-level inspectors supports this analysis.

Further forms can be identified in the literature. These are 'token enforcement' (Braithwaite, Walker and Grabosky, 1987) and flexible enforcement (Bardach and Kagan, 1982) where officials are flexible in both interpreting the rules and being ready to use coercion. In his research into pollution control, Hawkins (1984) found that field officers would, if necessary, embellish their duties, resorting to bargain or bluff to secure compliance regardless of the formal regulations. Case studies on the enforcement styles adopted by inspectors indicate that the practices adopted can be highly varied (Braithwaite and Makkai, 1994; Hawkins, 1997), with agencies adopting each style to differing degrees.

Hutter and Lloyd-Bostock (1990) distinguish enforcement according to type. They term these as proactive (where the agency acts on its own initiative) and reactive (where enforcement derives from an external event or person). The opportunities for reactive enforcement depend largely upon the ability of third parties to galvanize the activities of the regulatory agency. This can be limited, especially if complaints are not brought to the regulators attention. Further, the scope of enforcement activity, particularly an exercise of discretion, can be constrained because of the existence of third party oversight, where someone else monitors the activity e.g. the complainant or interested Non Governmental Organisations (NGO's). Organizational constraints, arising from the knowledge of senior personnel within the organization, may also inhibit enforcement activity..

Compliance entails applying "[those] measures designed to attain the legal mandate" (Hawkins, 2002 p.42) with the regulator being primarily more concerned with improved outcomes than prosecution results. Hutter et. al (1990) indicate that less than 1% of investigations by Inspectorates of the HSE during the period 1987/88 resulted in formal prosecution. In this context, the law plays a subtle role "as a device to concentrate the mind" (Hawkins, 2002), to improve a situation or prevent recurrence. However, intensifying enforcement pressure is not always commensurate with enhanced compliance. Being empirically grounded, the compliance literature is able to show that in practice agencies rarely if ever articulate their mission in terms of deterrence and punishment alone. Neither can compliance be explained in these terms.

The distinctive scholarly literature that has developed emphasises the enforcement styles adopted by the regulator in securing compliance. Enforcement as a generic term can encompass, "the whole process of compelling observance with some broadly perceived objectives of the law." (Hutter, 1988, p.5). This is a much wider conception than prosecution.

Framing compliance in terms of deterrence, whilst attractive in principle, is of limited effect in practice. It presupposes;

- that sufficiently clear rules can be drafted;
- that regulators have sufficient resources and capacities to detect and enforce against all infractions committed and importantly;

- that breaches detected will be prosecuted resulting in an imposition of heavy sanctions (which as Hutter, 1997, p.225, indicates is rarely the case).

The distinctive compliance literature indicates the shortcomings of deterrence theories and empirical studies show that, in reality, enforcement activity encompasses a use of many flexible strategies ranging from informal persuasive and educational techniques in addition to legal action.

THE DETERMINANTS OF COMPLIANCE

In the next two sections reference will be made to that body of literature identifying the various determinants of compliance ranging from the legal mandate given to agencies, their approach to enforcement and those motivations influencing compliance on the part of the regulated. This idea of ‘regulatory variability’ (Kagan, 1994) has been explored in considerable detail at many levels of generality. Kagan in an important overview of 1994 critiqued the enforcement styles of regulatory agencies and identified a number of variables, which appeared to influence enforcement activity. These were listed as follows:⁷

Table 1: Kagan’s compliance variables

<p>Legal design factors</p> <ul style="list-style-type: none">• Stringency of regulatory mission• Legal powers<ul style="list-style-type: none">▪ Ex ante/ ex post controls▪ Potency and immediacy of sanctions▪ Legal rights of regulated▪ Legal rights of complainants• Specificity of legal standards and penalties <p>Task environment factors</p> <ul style="list-style-type: none">• Visibility of violations<ul style="list-style-type: none">▪ Frequency of interaction with regulated entities▪ Visibility of violations to complainants• Regulated entities’ willingness to comply<ul style="list-style-type: none">▪ Size and/or sophistication of regulated entities▪ Cost of compliance / economic resilience• Seriousness of risks to be prevented <p>Political Environment Factors</p> <ul style="list-style-type: none">• Strength and aggressiveness of pro-regulation interests• Preferences of political authorities, as influenced by:<ul style="list-style-type: none">▪ Recent catastrophes or scandals▪ Economically urgent projects subject to regulation▪ Political controversy over enforcement style▪ Electoral shifts/changes in regulatory leadership▪ Budget cutbacks▪ Resistance by regulated governmental entities <p>Leadership Factors</p> <ul style="list-style-type: none">• Reactive vs. strong-minded regulatory leaders. If strong:<ul style="list-style-type: none">▪ Leaders’ policy beliefs▪ Beliefs concerning enforcement style• Degree of staff professionalism

⁷ Extracted from Kagan, Robert A. (1994), p. 411.

In the section below, the relevant factors derived from Kagan's taxonomy will be considered.⁸

LEGAL DESIGN FACTORS

The phasing of regulatory control can influence compliance. Research into regulatory enforcement (Kagan, 1989) distinguishes *ex post* from *ex ante* forms of regulation. Where regulations are drafted so as to apply *ex ante* (e.g. through regimes requiring prior licensing, or certification) Kagan argues that compliance may be swifter. Agencies adopting these forms of control may encounter less resistance (ibid, p.98). Added incentives will exist on the part of those being regulated. Without the relevant licence they would find it difficult if not impossible to carry on their enterprise. As already identified, regulation that relies upon detection and sanctioning (as *ex post* forms do) may not achieve ongoing compliance.

Researchers have argued that the framing of the legal mandate and the manner in which regulatory controls are drafted shape agency enforcement behaviour (Kagan, 1989 and 1994) and thus influence compliance. Where regulatory schemes rely upon the adoption of rule-based systems, the drafting of their content can affect both the form and the effectiveness of control. Drafting rules and standards in all contexts, particularly regulatory ones, is difficult. Effective rules are hard to design with sufficient precision that will deal adequately with all eventualities (Bardach and Kagan, 1982; Baldwin and Cave, 1999).

Rules may be over-inclusive, in the sense that they seek to apply to a wide array of situations not all of which require control (Bardach and Kagan, 1982).⁹ Similarly rules or standards may be under-inclusive and fail to address the problem being regulated (Black, 1997, pp.7-10, 28-29). Each reflects problems inherent with the nature of language. Where drafting is defective or leads to misinterpretation, the perceived legitimacy of the regulations and thus their effect upon the regulated community's compliance may also be affected. (Kagan and Scholz, 1984).

Regulatory forms can be classified according to two broad categories (a) the use of principles, and (b) a reliance upon detailed and explicit rules. The effects of using different drafting styles can be illustrated by reference to context of health and safety regulation. This is illustrated below.

Using precise rules

Example 1 below makes reference to Regulation 11 of the Provision and Use of Work Equipment Regulations 1998.¹⁰

These rules are relatively precise and in many cases enforcement and compliance might be conceivably less problematic. The relative visibility of any infraction makes non-compliance easier to enforce and in turn may lessen evidential burdens. In the HSE context law enforcement is made easier where an accident has occurred because the criteria for legal action have already been met - *res ipsa loquitur* 'the thing speaks for itself' (Hutter and Lloyd-Bostock, 1990).¹¹

⁸ Many of these factors are relevant to identifying the determinants of compliance that are agency centred. The factors relevant to the motivations for compliance will be looked at separately.

⁹ Where rules are, "too general, stringent and costly, if fully enforced" (Hawkins and Thomas, 1984, p.12).

¹⁰ Reproduced under the terms of Crown Copyright Policy Guidance issued by HMSO.

¹¹ It does not of course imply that legal proceedings will automatically follow.

Example 1

11. - (1) Every employer shall ensure that measures are taken in accordance with paragraph (2) which are effective -

(a) to prevent access to any dangerous part of machinery or to any rotating stock-bar; or

(b) to stop the movement of any dangerous part of machinery or rotating stock-bar before any part of a person enters a danger zone.

(2) The measures required by paragraph (1) shall consist of -

(a) the provision of fixed guards enclosing every dangerous part or rotating stock-bar where and to the extent that it is practicable to do so, but where or to the extent that it is not, then

(b) the provision of other guards or protection devices where and to the extent that it is practicable to do so, but where or to the extent that it is not, then

(c) the provision of jigs, holders, push-sticks or similar protection appliances used in conjunction with the machinery where and to the extent that it is practicable to do so, but where or to the extent that it is not, then

(d) the provision of information, instruction, training and supervision.

Using principles

To surmount the problems associated with overly rigid, rule-based regulatory standards, legislation may be drafted in terms of framework regulations or principles. In regulatory contexts legal mandates are often unclear (Di Mento, 1986, p.25) and require the exercise of degrees of discretion to overcome the defects of the application of rule-based frameworks to often technologically complex situations, as will be clear from the above illustration. Discretion is for this reason a pervasive form in regulatory arenas. Its presence may lead to concerns, however, regarding the exercise of agency activity that may warrant external accountability or oversight (Davis, 1969; Reiss, 1985).

The Robens Report (1972) marked a radical shift from a regime heavily reliant upon an application of rigid rules and criminal sanctioning. Detailed standards were replaced by broad duties (often with elements of self-reporting or self-regulation), which were supplemented by codes of practice or supplementary guidance. Broad statements of principle were used requiring employers to ensure the health safety and welfare of their employees (as with section 2(1) of the Health and Safety at

Work Act 1974). However, the approach of using principles, whilst arguably all-encompassing¹² without further detail can render enforcement and thus compliance difficult.¹³

Example 2

In the context of health and safety legislation the law may be drafted in such a way as to impose broad standards.

The general duties imposed by the Electricity at Work Regulations 1989, at Regulation 5 require that

Strength and capability of electrical equipment

5. No electrical equipment shall be put into use where its strength and capability may be exceeded in such a way as may give rise to danger.

Similarly,

The Manual handling Operations Regulations (1992 SI 2793) require

Duties of employers

- 4.—(1) Each employer shall—
 - (a) so far as is reasonably practicable, avoid the need for his employees to undertake any manual handling operations at work which involve a risk of their being injured;

In each case, the standards are framed in very broad terms. This may have the effect of giving rise to levels of uncertainty regarding whether the regulations have been complied with and indeed variations in compliance. The terms, “give rise to danger” and “so far as is reasonably practicable” import broad notions that may be subject to differences in their interpretation. This gives leeway for different interpretations leading at the extremes to ‘low level’ compliance or ‘high’ or over compliance.

Where drafting is defective and is open to misinterpretation, the perceived legitimacy of the regulations and thus their effect upon the regulated community’s compliance may also be affected (Kagan and Scholz, 1984; Tyler, 1990). Supplementing principles with detailed and highly prescriptive guidance, can still lead to problems with interpretation. Enterprise may contest the content of the regulations or, more commonly, be unclear as to the duties imposed upon them. Whilst all may be clear of the purpose of the law, these elements of uncertainty can lead to variations in compliance levels. Individual field inspectors may adopt varying interpretations on the ground as conceivably might employers. This might result in gradations of compliance.

¹² See p.9 Bluff and Gunningham “Principle, Process, Performance or What? New Approaches to OHS Standards Setting” July 2003 paper conference Australian OHS Regulation for the 21st Century, National Research Centre for Occupational Health and Safety Regulation & National Occupational Health and Safety Commission, Gold Coast, July 20-22, 2003

<http://ohs.anu.edu.au/publications/pdf/wp%209%20-%20Bluff%20and%20Gunn.pdf>.

¹³ Baldwin, R., (1995) Chapter 5 and Chapter 6, p.301

CULTURAL FACTORS STRUCTURING REGULATIONS

The role of supranational institutions

In its 2005 Report, the OECD identified that regulation at odds with cultural practices may result in failures in implementation and ultimately compliance. The Report notes that an absence of ‘cultural fit’ may render compliance problematic unless compensating supporting mechanisms (e.g. awareness, education, market incentives or building links with the existing institutions of civil society) are promoted.

Many health and safety provisions in the UK derive from European Union (EU) legislation. One particular factor informing compliance levels will be the impact of EU Directives and the effects of transposition.¹⁴

Differences exist in the way that Member States implement EU legislation. Some may do more to implement a directive, others may do less. This can lead to problems for multi-national companies operating across jurisdictions, where they have a series of standards to adhere to. Further, the consensus-driven approach to legislating between Member States may result in the promulgation of norms that have no ‘cultural purchase’ within a particular jurisdiction and may even destabilise existing agency mandates. The OECD (2005, p.28) note that

“...Compliance rates are lower when regulation does not fit well with existing market practices or is not supported by cultural norms and civic institutions. Of course sometimes the whole point of introducing regulation is to counter a market or cultural practice. However if regulation cuts across existing cultures and fails to build support through education, market incentives, or linkage with institutions of civil society, then it is unlikely to be effective at eliciting compliance ...”

This emphasises the importance of understanding the motivations for business compliance so as to compensate for any incompatibility with existing norms and practices and so overcome potential deficits.

Organizational Approaches

In seeking to achieve compliance, an agency may focus on preventing offending activity and attempt to induce conformity often by using rewards or withholding penalties. As we know from the compliance literature (Hutter, 1997, Hawkins, 1984 and 2002) preferred enforcement forms tend to promote ongoing relationships between the regulator and regulated. The aim of the process is to achieve adherence to the objectives of legal rules in a manner that extends beyond prosecution. The emphasis is often upon negotiations occurring ‘in the shadow of the law’ with legal rules being mobilised to induce conformity. Given the right conditions, compliance levels can be enhanced by adopting such an approach. There is serious criticism of these approaches, with some contending that these evidence ‘capture’ (Pearce and Tombs, 1990 and 1997). Yet, legalistic and punishment oriented strategies in the United States (US) jurisdiction have been found in some circumstances to achieve lower results than other more flexible regimes (Kagan and Axelrad, 2000). An agency focusing heavily upon prosecution by contrast may find compliance levels influenced by counterproductive effects; its resources dissipated by the investigatory process and ultimately be less able to secure equivalent, let alone higher, compliance levels (Bardach and Kagan, 1982).

While regulatory agencies and their staff may prefer to adopt voluntary rather than “coerced compliance” (Reiss, 1985, p.817) securing compliance can be militated by the resources available

¹⁴ *The process of incorporating EU Directives into domestic law*

to fulfil the relevant mandate and the levels of resistance found within regulated communities. In this context, regulatory decision-making is best understood by reference to:

- the environment or broad context within which agencies and field inspectors' in particular make their decisions;
- the organizational priorities of the agency and perceptions held by the regulator of the specific firm subjected to regulation, and
- the regulated community generally.

The environment within which an agency functions (including the level of public awareness or sensitivity of the domain), the approach of the agency (particularly its organizational configuration) as well as the regulatory culture will all influence compliance outcomes.

There is a strong theme running through the US literature that compliance and enforcement stringency vary according to the political environment of the regulatory regime (Kagan, 1989). Further, political scientists note that agency behaviour might be affected by interest groups and political leaders who seek to impose their own preferences and priorities on regulators, with the latter seeking to avoid political difficulty by deferring to that pressure. Within the UK, regulators are being called upon to justify their actions.¹⁵ This can result in the promulgation of ineffective but politically expedient regulations. Regulation may be the 'knee-jerk' response to a politically sensitive situation and as such ill-considered or badly drafted and accordingly difficult to enforce.¹⁶ Regulators now function in highly politicised environments¹⁷ and health and safety regulation is no exception. Health and safety has become subject to a high level of media attention causing regulators to be careful to justify their activities.¹⁸ This, in turn, shapes regulatory and compliance responses.

¹⁵ See the draft *Regulators Compliance Code and the Regulatory Enforcement and Sanctions Bill (Cm 7803 2007)*

¹⁶ See Baldwin, R., Hood, C., Rothstein, H. (2000), p. 282-305.

¹⁷ Baldwin, R. (2005).

¹⁸ One example being the HSE's "Myth of the Month" (<http://www.hse.gov.uk/myth/index.htm> <February 2008>).

ENFORCING THE REGULATIONS

The role of the Field Inspector

Regulatory compliance levels and their effectiveness rest not only with the enterprises concerned.¹⁹ Agency attitudes, especially those of its field inspectors and the way the latter interact with those being regulated, are highly influential. The signals made by regulatory agencies through the enforcement activities of their inspectors are of crucial significance. It is the field inspector who operationalises regulatory objectives in the field. As it is impossible for inspectors to identify and pursue every regulatory infraction (this would require unlimited administrative resources and unending intellectual capacities) the allocation of scarce resources in the field, will influence compliance. This is in addition to the mandate of the agency itself.

Compliance invokes a process of reinterpreting agency mandates on the ground (Edelman *et. al*, 1991, p.75). The approach of the field inspector and his/her *modus operandi* will inevitably shape compliance. Their activities rely heavily on developing co-operation with those regulated and so getting the job done efficiently and effectively (Hawkins, 2002, p.44). Scholars of enforcement note that field inspectors' activities are crucial to regulatory implementation especially where the regulations themselves are broadly defined and provide for the exercise of levels of discretion (Hawkins, 1984, 1992; Hutter, 1988). The organizational and institutional settings within which field inspectors operate have a significant impact upon compliance levels (Nielsen, 2007). The variability in inspectors' approaches, the settings in which they operate and their position relative to the regulated community will all influence compliance. Inspectors' attitudes and moral stance are influential particularly when managing compliance focuses on remedying a situation rather than punishment (Braithwaite, 1985). This is confirmed by UK studies (Hutter, 1987 and 1997; Hawkins 2002). Inspectors are heavily dependent upon those being regulated for information. Similarly businesses rely upon inspectors for advice to minimise the risk of further problems and costs. This reflexive relation is crucial to compliance activity.

Example 3

The health and safety regimes of the US Occupational Safety and Health Administration (OSHA), adopt a 'strong and effective' enforcement style (with high level inspection activity) that is often prosecution oriented (Kagan, 2004). However, it is still heavily reliant upon the use of targeted enforcement and field inspector discretion (Gray and Scholz, 1993). The result may be both unsuccessful in reducing injury or disease (Grabosky and Braithwaite, 1986), by reason of 'negotiated non-compliance' (Gunningham, 1987), adversarial legalism and inefficiency (Rees, 1988).

¹⁹ This aspect will be discussed at the next section.

BUSINESS MOTIVATIONS FOR COMPLIANCE

Businesses can vary widely in their response to regulation. Kagan and Scholz (1984) identified a series of motivational reasons for non-compliance in terms of disagreement with the regime, incompetence (in the sense of being unable to meet the standards set), and amoral calculation. Compliance behaviour can be seen as more varied and subject to more complex motivations than has historically been thought (Kagan et. al. 2003, p. 52). Many external factors, e.g. knowledge of the law; business relational distance to inspectors and the frequency of interactions between the regulator and regulated; compliance costs; workforce resistance or pressure, and the presence of external pressures (not only economic aspects) all additionally shape business' motivation to comply.

By identifying a taxonomy for the rationales underpinning the 'psychology' of a firm, and its motivations for compliance, the idea of rational self-interest and profit maximisation as being the sole motivation for compliance was shown by Kagan and Scholz (1984) to be a far too simplistic a logic. The authors argued that motive, attitude and capability would each influence compliance or otherwise.²⁰ Firms could be seen as either 'moral' or "amoral" calculators in terms that would suggest either a propensity towards generating internal norms of compliance or in the latter case behaviour warranting external vigilance. Those firms adopting a 'moral' stance were more likely to understand compliance with legal and regulatory rules in terms of civic duty. Adherence was viewed as the morally 'right' response. Empirical research has suggested that this 'principled' view of regulation is one of the most commonly cited reasons for compliance. A study commissioned by the HSE confirms this.²¹ However whilst firms may display some general knowledge of the law, the accuracy of their legal knowledge cannot be assumed and it remains difficult to establish a correlation between compliance and levels of legal knowledge (Hutter, 2001).

By contrast, the moral ambivalence of some firms can indicate a greater likelihood of non-compliance in certain situations. Kagan and Scholz (1984) did not go so far as to suggest that amoral attitudes necessarily resulted in non-compliance, simply the absence of a corresponding moral justification for compliance. In this context compliance is not necessarily linked to a perception of the risk of punishment (Braithwaite and Makkai, 1994) and variations in compliance levels will exist according to the characteristics of the enterprise in question (Gunningham and Kagan, 2005). The presence of moral ambivalence towards compliance may however impact upon the effectiveness of the enforcement style adopted by the regulator.

Recent research commissioned by the Health and Safety Executive suggests that four important motivations drive business compliance within the domain. These are as follows:

- A sense of moral responsibility;
- Regulation and its enforcement;
- Commercial incentives, such as greater productivity and lower workers' compensation premiums, and
- Measurement and benchmarking of health and safety performance.²²

In combination, these may tend towards a greater likelihood of compliance or non-compliance. In the section below we identify some of the key aspects highlighted by the literature regarding

²⁰ Braithwaite and Makkai (1994) have shown that these factors are not necessarily distinct and are more likely to be linked.

²¹ Michael S. Wright (1998) Research Report 179/88.

²² Directors' Responsibilities for Health and Safety – A Peer Review of Three Key Pieces of Published Research (contained within Research Report 451(2006) paragraph 2.4.1, p.49).

business' motivations for compliance. There will inevitably be some overlap and the factors should not necessarily be viewed independently.

PASSING ON COSTS

Kagan and Scholz (1984) noticed a predominance of economic rationalities informing business attitudes to compliance. They identified one of the most prevalent as being the ability to pass on costs. Where business could transfer the cost of adherence to third parties e.g. consumers, compliance was more likely to arise. Similarly, Loosemore and Adonakis (2007), in their study of small subcontractors in the Australian construction industry found implementation costs to be one of the main barriers to effective compliance with health and safety regulation.

Genn's cross-sectoral research into compliance with health and safety requirements in 1993, covering forty industrial and agricultural sites of varying size from those employing over 500 workers to small sites, established not only that smaller enterprise displayed a more reactive attitude to compliance but that different sectors had varying compliance motivations. One variable identified by that study was the cost of compliance to the company relative to the benefits likely to accrue (Genn 1993, p.229). The impact of the costs of compliance per se was found to be more significant to smaller firms undertaking less hazardous enterprises.

May (2004) suggests that those enterprises with greater knowledge and resources (whether financial or technical) have a greater capacity to comply. This is borne out in the health and safety context by Genn (1993). Where the costs of compliance increase relative to production, this can lead to competitive disadvantages (Winter and May 2001) or gaps in communication, (whether through subcontracting or through the disparate location of the industry, (Haines, 1993)). As a result, compliance can lessen.

REPUTATION

Research indicates that it is overly simplistic to assume that firms (whether as management or individuals) make calculations as to whether to comply with regulations solely on the basis of economic cost or profit maximisation. Whilst economic motives per se may not be the prime motivation for business compliance, the presence of unquantifiable costs in particular those connected with adverse publicity can have a significant impact. Fisse and Braithwaite (1993, pp.247, 249) found that in relation to 17 high profile cases studied, corporations feared the effects of adverse publicity and its reputational effects more than they feared the law. Businesses may or may not have strong incentives to comply and powerful reasons such as reputational factors, (especially the threat of damage to their public image) may influence the compliance stance adopted. Counteracting negative publicity has been identified as an important motivation for compliance (Bardach and Kagan, 1982, p.164), especially for larger firms (Gunningham et. al 2005). May, (2004, p.48) suggests that reputational effects can impact in both a positive and negative sense. Concerns about loss of reputation may be such that compliance becomes more significant for firms already in compliance. Reputational aspects impact most heavily in the context of 'branding' or quality systems by potentially giving formerly non-compliant firms a means of enhancing their place in the market.

THE SANCTION OR PENALTY

Closely linked to reputation are the effects of sanctions on compliance behaviour. Scholz and Gray (1990) identified that the imposition of a penalty can affect firm behaviour regardless of the extent of the penalty itself. Thus, the size of the penalty itself had little impact upon safety improvements in the context of US Occupational safety and health. In that context, the inspection together with its (adverse) consequences drew to management's attention safety issues. Scholz and Gray in the same

study also observed that intelligence gathered on the number of similar firms being penalized, especially any changes in the probability of penalty and its amount could have general deterrence effects.

In an important study of corporate compliance in the context of environmental protection, Gunningham et al (2005) note that legal and economic motivations tended to vary not only according to the size of the enterprise but according to the nature of the industry. Large firms were concerned by adverse publicity but less concerned by inspections activity, whereas small and medium sized firms were more concerned by supply chain pressures (where the activities of subcontractors are constrained by superior contractors or consumer pressure influences the behaviour of suppliers). Gunningham et al distinguish 'explicit general deterrence measures', from the 'specific deterrence' created by inspections and sanctions against the particular firm.²³ The former had a modest impact relative to firm size but this was often diminished as companies could not make comparisons easily (and most considered themselves compliant and had little to fear from the penalties imposed). Legal sanctioning had a significant impact on the compliance behaviour of a substantial minority. It did, however, play "a reminder function" and a reassurance function to perpetuate a level playing field and thus prevent declining industry standards. Additionally, penalties had an 'implicit deterrence' function, which had more salience in the general enforcement history relevant to the industry.

A use of informal sanctions, including embarrassment and shame, can inform compliance behaviour. The 'fear factor' (Parker, 2002) may be a strong motivator for compliance. Parker suggests that this can be a powerful motivating force for those companies having experienced regulatory crisis.²⁴ Fear may 'trickle down' through the supply chain shaping sub-contractors behaviour with subcontractors being contractually bound to conform to certain types of behaviour. For high profile organizations, fear of prosecution, enforcement notices and experience of a major incident or indeed having hazardous activities as an integral part of the enterprise (Genn, 1993) may be perceived as sources of adverse publicity ultimately affecting profitability and thus enhance compliance attitudes and behaviour.

The idea of "restorative justice" relies in part on the effectiveness of shame and other informal (often peer) sanctioning to reduce non-compliance. It has been applied in contexts of corporate governance (Braithwaite, 2002; Parker, 2002). However, the use of ethical compliance programs as part of sentencing seems not to reduce illegality. McKendall, DeMarr, Jones-Rikkens (2002) tested the hypothesis that incorporating the Uniform Sentencing Guidelines 1991²⁵ would result in fewer violations. They studied 108 large corporations and found that the incorporation by the US Occupational Safety and Health Administration (OSHA) of such programmes served as "window dressing" to deflect attention or culpability and further that lower profitability resulted in greater or repeat violations.

TRUST, CO-OPERATION AND PROCEDURAL FAIRNESS

Braithwaite (2002) points to the significance of attitudes and moral calculations when managing compliance, with firms being more motivated to comply when emphasis is placed upon reparation rather than punishment. Underlying this view are issues relating to the nature and purpose of the regulations and that most businesses are "ordinarily inclined to comply with the law, partly because of belief in the rule of law, partly as a matter of long term self-interest" (Kagan and Scholtz, 1984, p.67). Unless firms agree with the regulations they react negatively to formal control and this can

²³ Scholz (1994) defines specific deterrence as the "impact of an enforcement action on future compliance of the firm", whereas general deterrence is the more generalized effect of the particular action on other firms (p.426).

²⁴ By contrast Hopkins (2007) suggests that there is no direct correlation between crises and compliance.

²⁵ On the communication of ethics and ethical codes to companies as part of the sentencing programme.

increase the propensity for opportunistic conduct. The same authors, as we have seen, identified motivational reasons for non-compliance in terms of disagreement with the regime, incompetence (in the sense of being unable to meet the standards set), and amoral calculation. Empirically these reasons were found to be not necessarily distinct (Braithwaite, et. al., 1994), with the overriding factor being the proximity of the ‘relational distance’ (Black, 1973; 1976) between the regulator and the regulated, whether grounded in broad trust or instrumental reasons e.g. as shown by a convergence in shared goals or expectations. Tax compliance studies point to “the importance of an authority's trustworthiness, interpersonal respect, and neutrality in its dealings with others.” (Murphy, 2005, p.566). Thus the perceived standing of the regulatory agency is also important. Where firms internalise the importance of ‘doing the right thing’ they are more motivated to comply (Braithwaite, Murphy and Reinhart, 2007). However, it should be recognised that the harnessing of co-operation may need to be reinforced by sanctions and penalties for effectiveness.

Recent HSE commissioned research (Wright, Marsden and Antonelli, 2004) on motivational factors, provided a mixed picture of the motivations for compliance. It suggests that the extent to which employers make cost benefit analyses in relation to health and safety, particularly the extent to which it is felt that benefits to business of health and safety programmes outweigh their costs is highly varied. The perceived cost and affordability of health and safety can inhibit improvements, despite organisations adopting a, ‘compliance’ rhetoric. However, engagements at very senior levels of firms with stakeholders and regulators resulted in greater awareness of the need for business to manage health and safety risks. A need for education and awareness remains. Key motivational factors identified in HSE commissioned research²⁶ were (a) the business case, especially reputational risk, (b) enforcement and (c) the moral dimension.²⁷ It is less clear how each of these terms is defined and their effects in varying organizational, social and economic contexts. The study confirmed that “strategy that combines advice/information, incentives and enforcement is consistent with the reported attitudes and behaviours of employers.”²⁸ One important case made in the report is that extreme caution should be exercised when making generalizations from the attitudes of organizations within any specific sector or according to their size. Whilst floating the possibility of matching interventions to the perceptions of the target audience, there remain considerable questions regarding the assessment and ordering of organization’s subjective preferences.²⁹

THE REGULATORY ENVIRONMENT: THE ECONOMIC CLIMATE

Compliance is informed by many other factors and different contexts will inform compliance motivations. Scholars have noted empirically that the more important to the economy the industries being regulated, the less stringent an agency’s enforcement of their operations. Veljanovski, (1987) identified that economic effects globally or individually, may result in greater tolerance being given to struggling firms or industries. This factor has been identified in the context of environmental regulation (Atlas 2007, p.946). We might infer that regulators may lower expectations where the economic viability of key industrial interests is at stake. In a similar context, it has been found that the unemployment rate or business climate in an area affects environmental enforcement (Decker 2005; Hutter, 1997). The more economically depressed conditions are, the more pressure environmental enforcers might feel to lower penalties so as not to further undermine the financial viability of defendants and risk job losses (Atlas, 2007 p.946). These factors may however influence the perceived legitimacy of the agency within the wider regulatory community.

²⁶ HSE Research Report 334,(2005), “An evidence based evaluation of how best to secure compliance with health and safety law.”

²⁷ *Ibid.* para 6.5.1.

²⁸ n. 26 para 6.5.2, p. 123.

²⁹ *This may ultimately impact upon questions of equal treatment before the law (Kagan, 2004).*

Taking a different perspective, we know from research that costs resulting from ill-health or accidents tend to be relatively higher for less profitable firms (Favaro and Davillerd, 1997). This might suggest a greater propensity for carelessness on the part of less profitable firms or it may confirm a link between economic factors and compliance levels. Economic factors can influence compliance levels to the extent that industries may be more concerned with perfunctory compliance (or non-compliance) where the costs of compliance are high (Kagan and Scholz, 1984). This latter factor will be explored further below.

ALIGNMENT OR CONVERGENCE OF INTERESTS?

Where public and business interests are insufficiently aligned voluntary compliance is difficult, if not impossible to achieve (Gunningham and Rees, 1997, p.390). Where however (a) a strong natural coincidence between public and private interest exists or (b) external pressures sufficient to create such a coincidence exist, voluntary compliance becomes more likely. Compliance may stem from the inherent nature of the risk associated with the enterprise (e.g. oil or chemical or nuclear companies) or the embeddedness of the firm into its operating community (whether by reputation, competition or other factors) and how it perceives its operating functions. Genn (1993) noted that those firms having risky or dangerous functions integral to the profitability of the enterprise (as with biotech firms, the chemical and oil industries) relying heavily upon internal systems of safety for their viability would generally be more compliant than those not so reliant. By contrast in farming, there would seem to be a tradition of high-risk acceptance, which is combined with a low resource level (Larsson, 2002). Demolition and construction industries (Hutter, 1988) and scrap metal firms have been viewed as less compliant sectors. The reasons for this may be multiple and complex linked to the transience of the enterprise, levels of competition and limited levels of organizational controls.

Engendering collective interest may result in a convergence of reputational issues or competition within the industry, such as to secure compliance. Another source may be the presence of sufficient external pressures on enterprises or industry associations to make self-regulation work. These may derive from state pressure (real or threatened intervention) or appeals to credibility or legitimacy, or industry self-interest or indeed consumer pressure. This may be one fundamental reason for the orientation of environmental regulation towards self-regulatory approaches. Peer pressure and consumer preference may in certain circumstances be harnessed to support voluntary strategies, but enterprises need to have sufficient knowledge and capacity to deliver compliant co-operation and if necessary punish non-compliant behaviour. For example, it may be that customers can identify compliant firms and value compliant behaviour and distinguish those committing repeated violations (Purchase, 1996, p.16). Alternatively, collective action and responsibility may arise from disaster situations as in the presence of 'communities of fate', where there is a recognition that existence of non-compliant behaviour can adversely affect the industry as a whole (Rees, 1988).

HEALTH VERSUS SAFETY

Scholars have shown that levels of compliance with regulations may vary between regulatory domains (Haines and Gurney, 2003) and among them. There may be strong elements of competition between regulatory regimes and enterprise may prioritise compliance in terms of which regulations require the most attention for various reasons. Hazards generated in the workplace and the actual risk of exposure, will explain the incidence and type of occupational trauma and disease. However, some occupational groups, particularly in high-risk areas, tend to under-estimate or be prepared to accept the high inherent health risks of their trade (Larsson, 2002). Variations in compliance levels may be sector specific.

There remains some suggestion within the literature that compliance levels in the domain of the health and safety may vary. Compliance with health-related regulations may be lower than for those relating to safety (Hawkins, 2002). The reasons for this may extend to:

- The form or content of the standards imposed;
- The visibility or tangibility of the problem (Hutter and Lloyd-Bostock, 1990);
- The visibility of default. The harm caused or infraction committed may be difficult to identify and thus enforce (e.g. the long term factors associated with industrial disease, or the nature of the problem e.g. stress);
- The organizational configuration of the enterprise and the priorities for compliance it sets (Saksvik and Quinlan, 2003), and
- The perception of society as a whole.

Saksvik and Quinlan (2003, p.50) note for example, that the implementation of systematic health and safety regimes may conflict with other organizational interventions e.g. health programmes. Furthermore, the organizational structure of the enterprise may perpetuate inflexibility or change resistance; managers may prefer, for example, to restrict employee participation to the individual rather than making systemic organizational changes.

INDUSTRY SIZE AND STRUCTURE

Firm size appears to be heavily implicated in accounting for compliance levels, with smaller firms appearing to be less responsive to change and having fewer resources available to them. This is evident in much of the policy literature across regulatory domains.³⁰ Genn (1993) noted variations in compliance responses in the context of health and safety, which were attributable partially to the size of the enterprise. Large and small firms tended to respond differently to enforcement and she hypothesised that this was linked to their relative capacity to comply. Large firms were less likely to be seen as incompetent in management terms and this led to variations in inspector expectations. In the same context, Fairman and Yapp (2005)³¹ note that a lack of skill, knowledge, interest, time and money may contribute to create barriers to small and medium-sized enterprise (SME) compliance. There is generally a perception that small business encounters more difficulty in complying with regulation in general than large enterprise.³² The management structures of SME's may present little opportunities for management to focus on detailed health and safety issues and the fact that many smaller firms have a relatively short life may mean that they have insufficient time to acquire appropriate skills. This is confirmed in the domains of food safety (Fairman and Yapp, 2005) and competition law (Nielsen and Parker, 2005). However, as will be discussed below, the picture may be more complex.³³

Parker and Nielsen's recent study of the Australian Competition and Consumer Commission (ACCC)³⁴ in relation to compliance with the Trade Practices Act found that the size, level of interaction with the ACCC and investigations undertaken by the latter were likely to influence compliance outcomes. Larger businesses exhibited more of those characteristics associated with greater degrees of compliance. They were also more likely to have interacted with the Commission or to have been investigated by it than smaller firms. By contrast, Gray and Deily (1996) in their

³⁰ This is confirmed in much of the policy literature. See, for example, the Food Standards Agency (e.g. its wine standards enforcement policy) and the Financial Services Authority (FSA).

³¹ Fairman and Yapp refer not only to their own work 2004 at pp. 26-28 but also to the work of Fanshawe (2000) and Gerstenfeld and Roberts (2000).

³² This is confirmed both in national and trans-European policy literatures e.g. OSHA Europa, FSA.

³³ It may also be attributable to the type of interactions regulatory agencies have with the regulated community. Shover, Lynxwiler and Groce, and Clelland (1984) suggest that agencies may be more inclined to adopt co-operative strategies for larger businesses but more legalistic approaches for smaller ones.

³⁴ Parker and Nielsen, ACCC Enforcement and Compliance Survey, Report of Preliminary Findings 2005.

study of US steel firms and air pollution compliance indicated that larger firms were more likely to be non-compliant than others.

Some doubt remains regarding whether comparable findings have been established in the context of health and safety, (Larsson, 2002). Dawson et. al. (1988) suggested that large firms were more likely to adopt good safety practices. A study of small firms in the Australian construction business noted an existence of poor communication between employees and management, with smaller firms being poorer at implementing Occupational Health and Safety programmes for reasons of lack of awareness and intense competition in the sector (Lingard and Holmes, 2001). An extended academic and policy literature exists to emphasise the difficulties small firms encounter in complying with regulation.³⁵

Example 4

In 2001, Australia shifted the emphasis of its occupational health and safety regulation towards more self-regulated performance based and consultative management of health and safety risks. As a consequence scholars identified the difficulties small firms experienced in adapting to the regime (Loosemore and Adonakis, 2007).

There is evidence of a ‘compliance gap’ between large and small firms (Dawson et. al., 1998, p.261). This may be related to the capacity and ability of small firms to comply (Grabosky and Braithwaite, 1986; Hutter and Jones, 2006) or that larger firms have a greater capacity to challenge the definition of deviance (Yeager, 1991). Further, larger firms may have such high levels of differentiation that non-compliance without detection becomes a greater possibility (Di Mento, 1986, p.156; Hutter, 2001). However, both large and small firms may experience challenges in economic terms affecting their ability to comply.

Regardless of size, high degrees of specialism or technical expertise may render firms far more aware of regulations and the impact of non-compliance (Corneliussen, 2005). External factors may influence compliance activity also. However, small firms do not necessarily exhibit low levels of commitment or motivation. In particular, Corneliussen (2005) found that in the biotech industry small firms were highly motivated with technically able staff capable of adhering to and maintaining health and safety standards.

THIRD PARTY STAKEHOLDERS OR ‘SOCIAL LICENCE’ ISSUES?

Autonomous sources, whether economic or civil society can influence both the form of state regulatory activity and compliance. Hutter and Jones (2006) note that consumers, the media, insurance companies, lawyers, NGO’s and trade associations, as well as economic, political and social forces can shape compliance. This extends to how the internal management and organization of the business engages with third sectors and also the interaction with and between management and employees. In environmental contexts Gunningham et. al (2005) suggest a strong role for civil society and NGOs with regard to “corporate social licenses” to operate. “Social license” is defined by the authors as those demands or expectations emerging from neighbourhood groups, communities and elements of civil society that influence corporate behaviour (2005, p. 308). These groups can perform a strong monitoring role that can influence on compliance behaviour.

³⁵ See e.g. Aalders and Wilthagen (1997). RoSPA (1998) in a report to EU noted that accident rates tend to be higher on average in manufacturing in firms employing less than 50 the rate of fatal accidents, approximately twice that in firms employing 1000+ (http://osha.europa.eu/publications/conference/20020903/index_13.htm/view?searchterm=compliance. <30 November 2007>).

Enlisting third parties to act as ‘gatekeepers’ (Kraakman, 1986) is one way of enhancing compliance. Fairman and Yapp’s HSE’s research report (2005) noted the ‘positive impact’ on compliance behaviour by the interventions of training colleges (in particular the threat of removing trainees) in improving risk assessment compliance.³⁶ Another illustration is the harnessing of supply chain pressure where there are large disparities in commercial power. These have been adopted effectively in the context of environmental regulation (Gunningham, 2004). Here through a use of contracts larger firms may be able to exert pressure on smaller firms to adhere to regulatory requirements. Although a degree of scepticism has been identified in some HSE research reports (e.g. RR334³⁷), the potential exists to harness this resource in certain contexts, where contractual links between firms are strongest. Similarly, a role exists for tools of self-regulation and self-audit. Gunningham (2004) notes that self-audit has considerable potential for SME’s when used responsibly. Each of these techniques (when used intelligently) may serve to enhance levels of trust between the agency and those being regulated whilst redistributing enforcement allocation more efficiently.

ORGANIZATIONAL STRUCTURES: THE INTERNAL PRACTICES OF FIRMS

Business responses may vary widely with the convergence of interest or otherwise between employers and workers shaping compliance levels. In some instances the nature of the risk, disaster or catastrophic event (or where compliance is integral to the enterprise) will suggest higher motivation for and levels of compliance. Where firms exhibit low motivation for compliance, or self-interest or indifference on their part makes non-compliance profitable, non-compliance or poor compliance can be anticipated. Empirical evidence suggests that the following factors will all influence compliance (Genn 1993):

- knowledge (or otherwise) of the law or regulations;
- the proximity or relational distance of the firm to inspectors (Black, 1976);
- types of ownership;
- compliance costs, and
- workforce resistance or pressure.

Smaller firms have been shown to rely upon external influence to motivate change in their internal practices. Although the authors emphasised caution regarding their findings, Fairman and Yapp (2005) noted the role on small firm compliance that local authority activity and external actors can play.

REGULATING PUBLIC BODIES

Scholars have identified that regulatory agencies appear more inclined to adopt accommodative and less legalistic approaches when dealing with public bodies. Pollution controls have been found to be less stringent when directed towards public entities as opposed to private industries (Ackerman et. al., 1974) and Dutch planning authorities were found to be at their weakest when government sought to build on municipal land (Niemeijer, 1989). Reasons for this may relate to reluctance on the part of agencies to divert money from public services or to the capacity of public bodies to mount effective political campaigns against some forms of regulation (Kagan, 1989).

Notwithstanding the existence of formal regulation directed towards public bodies, the result may be more reflexive or negotiated forms of compliance (Hood et. al., 2000, p.284). Some suggest the presence of an increasingly deterrence oriented focus, however (Walshe, 2002).

³⁶ RR366, p.3.

³⁷ RR334 An evidence based evaluation of how best to secure compliance with health and safety law.

RESPONSES TO REGULATION AND ENFORCEMENT STYLES

In this section reference is made to the effectiveness (or otherwise) of different compliance and enforcement strategies. Kagan, (1994, pp. 390 ff.) identified variations in enforcement styles being influenced by (a) regulatory design, (b) the social and economic environment of the agency, (c) its political environment and (d) its internal leadership. The factors listed below can all influence compliance behaviour and rates:

- the organizational configuration of the agency, the environment within which it operates and its perceived mandate;
- the design of the regulations;
- firms' motivations for compliance can be influenced by a number of internal and external factors and is not restricted to rational self-interest or the perceived duty to comply with the law;
- market configurations, firm size and sector.

THE IMPACT OF REGULATORY DESIGN ON COMPLIANCE PRACTICE

The relationship between regulatory norms and business behaviour remains a key theoretical and empirical issue. Given that the level of formal enforcement (prosecution) remains low, and a use of compliance strategies such as persuasion or education is more prevalent than some might anticipate, we might ask how important is the threat of sanction as opposed to education or persuasion? As presented in the section above a motivation to comply with regulations is not always linked to the perceived risk of punishment. The form of regulatory enforcement is important to compliance.

ENFORCEMENT ACTIVITY

Adopting highly detailed prescriptive regulation can be problematic and, in many circumstances, counterproductive (Gunningham and Rees, 1997, p. 364). Enforcement activity increases compliance but in a heterogeneous way, with some firms being more sensitive to certain forms of enforcement action than others (Gray and Shadbegian, 2005). The impacts of using different enforcement strategies on compliance outcomes is complex as will be seen below. Compliance is related but not determined absolutely by the enforcement strategy adopted.

FORMAL ENFORCEMENT AND COMPLIANCE

One reason why enforcement may fail to improve compliance is because it does not sufficiently deter. One counterproductive effect may be that of imposing penalties insufficiently large to deter the offending behaviour. Alternatively, imposing too great penalties can result in an inability of firms to pay and have damaging wider consequences for employees, creditors and society as a whole (Braithwaite, 2002; Parker 2006). Punishment per se may be a central driver in prosecution but it is not in compliance (Hawkins, 2002). Deterrence may lead to a mobilisation of firms to attack the legislation.

Where deterrence style regulations (of the command and control type) are used, co-operation between firms and regulators may be more effective than conflict if both sides co-operate (Scholz, 1991). Recourse to formal enforcement measures whether prosecution or legal notices, depending on the severity of the violation and the response of the regulated to previous enforcement efforts³⁸, will influence compliance. The impact of the regulations themselves rather than the penalties have been seen as the motors for compliance. However the imposition of penalties can direct attention to

³⁸ *With failures to comply often prompting more punitive measures.*

management defects. Hopkins (1995) notes that on the spot fines are effective because of their shock impact as opposed to the size of the penalty.

In a study of the factors rendering health and safety inspectors more likely to prosecute, 50% of interviewees considered that prosecution would not necessarily have an impact on employer behaviour (Hawkins, 2002, p.282). Coupling feasible requirements with stringent enforcement is however likely to create strong incentives for compliance (Magat and Viscusi, 1990). The results may have general or specific deterrence effects. Scholz and Gray (1990) in their research of the effectiveness of enforcement by the OSHA had found that the imposition of a penalty can affect a firm's behaviour regardless of the extent of the penalty itself. Inspection of individual plants showed a decline of 22% in injuries over the following three years despite the imposition of very low fines. OSHA enforcement activity generally was found in the research to result in only modest reductions in injury rates overall, with a 10% increase in enforcement activity decreasing injury rates by 1%. The researchers found also that unexpected increases in accidents may cause managers to pay more attention to safety just as reduced accidents may lead to attention deficits. Where within the regulated community it was known that similar firms were being penalised with changes in the probability of penalties or the amounts of penalties being imposed, more general deterrence effects were noted.³⁹

INSPECTIONS

The role of inspections becomes a key element in not only assessing enforcement but as a medium through which knowledge is disseminated and advice given. Thus face to face interaction can shape compliance behaviour, solve problems and in doing so build up trust, an important feature in encouraging compliance (Hawkins, 2002, p.47). Mendeloff and Gray (2005) note in their study of the enforcement of health and safety standards by the US OSHA that inspection can spur compliance with all standards not just those cited in an inspection. However there may be limited scope for injury prevention. They suggest that a finding of default does not necessarily have a compliance impact but that the imposition of a penalty can lead to improvements extending beyond a basic compliance with the regulatory standards. The size of the firm and the presence or absence of union representation may also influence the effectiveness of enforcement. They suggest that greater overall compliance is induced by inspections (particularly, where penalties are levied).

A study of municipal enforcement of agro-environmental regulations in Denmark (May and Winter, 1999) researched the relationship of the influence of different inspectors' enforcement styles to the choices made by the agency itself. The choices made by the agency were found to be more important than the individual inspectors' enforcement style but the latter's style was influential.

Lingard and Holmes (2001) study of Victoria's Occupational Health and Safety control of small construction businesses in the context of skin disease and accidents from falls from heights emphasised the role of financial incentives and institutional configurations in enhancing compliance in addition to education and training. Increased inspections by employers and supervisors in addition to enforcement by the OHS were also thought to enhance effective compliance.

It is too simplistic to equate increasing agency inspections with increased compliance. Furthermore this is rarely feasible given the finite resources available to regulatory agencies. Dialogue, persuasion and cooperative problem solving only makes sense under the right circumstances. Firms may not be wilful in their non-compliance but lack the organizational capacities to adhere to the

³⁹ Where the regulations are perceived as legitimate general deterrence was found to be a less forceful driver (Gunningham et. al, 2005, p.296). In the marginal case Gunningham reports that news of sanctions against another firm had been a 'powerful motivator'.

regulatory requirements (Kagan and Scholz, 1984). Low detection rates will affect perceptions of the effectiveness of deterrence strategies. Thus, a mix of regulatory styles may need to be deployed to improve compliance rates (Gunningham and Grabosky, 1998; Gunningham and Johnstone 1999; Sparrow, 2000; Parker, 2006).

SELF-REGULATION AND ENFORCED SELF-REGULATION

In some circumstances, using self-regulatory forms can be more effective, provided that the regulated community has the resources to harness peer pressure to internalise responsibility for compliance. Again this may depend largely upon the size of the enterprise, the institutional configuration of the industry and will require the existence of strong motivations for compliance, possibly the threat of stringent government regulation. The environment within which all forms of self-regulation occurs is important (Hutter, 2001).

Example 5

Between 1979 to 1984 California OSHA (CAL/OSHA) the Division of Occupational Safety and Health tested industry self-regulation, known as the Cooperative Compliance Program (CCP) a tripartite agreement between management, unions and OSHA. Using a 'job site labor management committee' to assume many of OSHA's functions, CAL/OSHA's routine compliance inspections during this period ceased. The seven job sites participating were large construction sites (with values ranging from \$36m to \$2.4bn), (including one power plant and nuclear processing plant and high tech research in addition to standard blocks) all workers on the sites belonged to construction unions and at each site accident rates dropped significantly (Rees, 1998).

More usually self-regulation is used as a shorthand for 'enforced' self-regulation where individual organizations make their own rules but submit these to public agencies for approval and are potentially subject to public enforcement (Ayres and Braithwaite, (1992). The advantages of this approach are that:

- A more efficient system of corporate regulation would be developed with rules being tailored to corporate requirements;
- Rules would be more adaptable to changing business circumstances;
- Regulatory innovation would be fostered;
- Rules would be more comprehensive in their coverage;
- Companies would be more committed to rules they had written;
- Regulatory duplication would be avoided and the costs of duplication reduced;
- Business would bear more of the costs of its own regulation;
- Offenders caught would be disciplined in a larger proportion of cases;
- Convictions may be easier (because rules would be more precise and tailored to situations);
- Compliance would become the "path of least corporate resistance".

(Ayres and Braithwaite, 1992 pp.110-115)

RESPONSIVE REGULATION

Under models of enforced self-regulation, government would compel businesses (or trades associations in cases of co-regulation) to write their own set of rules tailored to their unique setting. The rules would be approved by the regulatory agency and modifications would be required if they showed insufficient stringency. Most enforcement duties and costs would be internalized by the

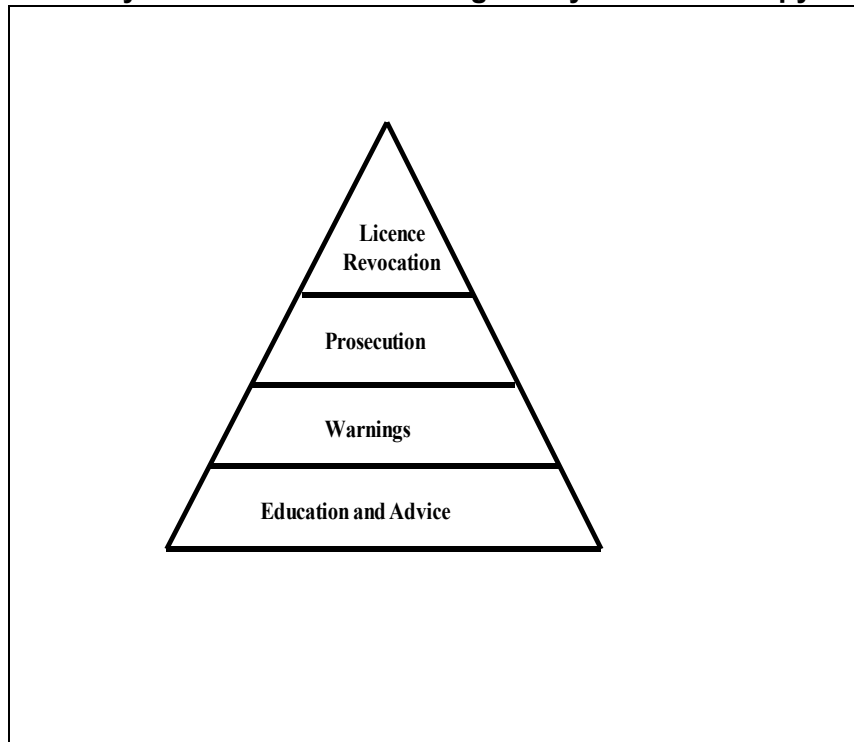
company or association. Enforced self-regulation has been said to “[combine] the versatility and flexibility of voluntary self-regulation, [whilst avoiding] many of the inherent deficiencies and weaknesses of voluntarism” (Ayres and Braithwaite, 1992, p.106). However, it requires agencies to bear the costs of approving many self-regulatory schemes and business to bear increasing regulatory costs in terms of rule-drafting and initial enforcement. Without more this may result in a lowering of regulatory standards and firms may co-opt or capture regulatory schemes, to their own advantage. The force of the ‘rule of law’ may also be eroded. Using a mix of regulatory strategies is often advocated to overcome these problems.

One of the most apt illustrations applying this thesis emerging from the academic literature is that of the regulatory enforcement pyramid. Ayres and Braithwaite (1992) offer the notion of responsive regulation. Responsive regulation provides a model of more flexible and often more measured state intervention, with government selecting when and when not to intervene by aligning its responses to industry structure (its concentration and organisational structure) and the conduct and motivations of those being regulated. The idea of responsive regulation is encapsulated in two enforcement pyramids, one for a hierarchy of sanctions, the other one a hierarchy of regulatory strategies increasing regulatory interventions in the face of persistent non-compliance and with decreasing intervention where compliance occurs. Regulation ‘responds’ to the behaviour of those being regulated. The sanctions pyramid is targeted at firms with the strategies pyramid being directed to industries. The component of each layer in the pyramid may vary but the principle is that the least intrusive interventions take place at the base of the pyramid with the state having the capacity to escalate interventions to enforce compliance. The idea is for regulators to deploy an array of techniques in enforcement of increasing severity ranging from the provision of advice and guidance, persuasion and bargaining, negotiation, enhanced surveillance, pressure negotiation and scrutiny through to the use of more formal and coercive techniques. Whilst voluntary compliance is a major feature in successful regulatory programmes, co-operative strategies occur in the shadow of the prospect of formal law enforcement. The punishment and deterrence of unjustifiable violations will still be necessary in appropriate situations, as will be strict enforcement in given situations. Enforcement will however be discriminating and attuned to a complex view of organizations and their competencies.

Responsive regulation seeks to overcome problems of moral ambivalence present within regulatory law by ‘building in’ a moral commitment to abide by the law. It has been defined as

“... the practice of (a) influencing the flow of events (b) through systematic, fairly directed and fully explained disapproval (c) that is respectful of regulatees, helpful in filling information gaps and attentive to opposing or resisting arguments, (d) yet firm in administering sanctions (e) that will escalate in intensity in response to the absence of genuine effort on the part of the regulatee to meet the required standards...” (Braithwaite, 2007, pp. 5-6)

Table 2: Ayres and Braithwaite's regulatory enforcement pyramid



Source: Ayres and Braithwaite (1992)

ADAPTING THE ENFORCEMENT PYRAMID TO HEALTH AND SAFETY CONTEXTS

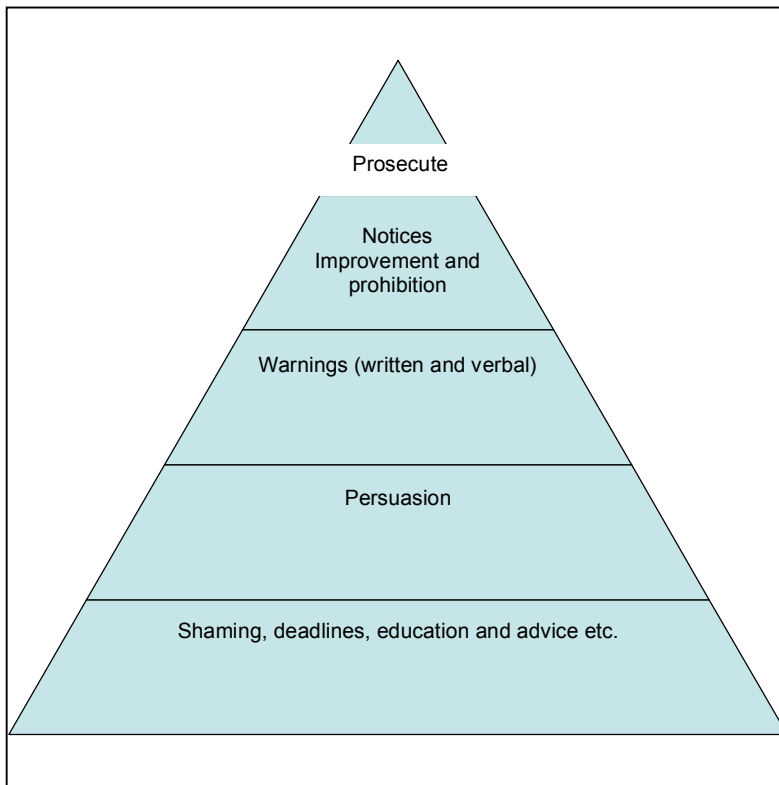
Hutter (1997, p. 227), drawing on the Ayres and Braithwaite model, constructed a modified sanctions pyramid relevant to health and safety related activity in her empirical study of the enforcement activity of field-level inspectors for the Factory, the Industrial Air Pollution and Railway Inspectorates.⁴⁰ This is shown overleaf.

Gunningham and Grabosky (1998) have developed the idea of the regulatory pyramid for identifying which policy instruments best complement one another. They suggest the following principles:

- Prefer policy mixes incorporating a broader mix of policy instruments and institutions (this would overcome the limiting deficiencies of individual instruments, whilst harnessing their strengths);
- Prefer less interventionist measures;
- Ascend the enforcement pyramid to the extent that it is necessary to achieve policy goals;
- Empower those in the best position to act as surrogate regulators. In the case of health and safety compliance this might be employees or Trades Unions. However, Dawson et. al. (1988) have expressed considerable doubts as to the practicality of this aspect given the structuring of industries and of labour relations. The predominance of small and micro firms may render this principle even less practicable;
- Maximise the opportunities for win-win outcomes.

⁴⁰ All three were part of the HSE at the time. The HSE retains responsibility for health and safety in factories.

Table 3: Modified Sanctions pyramid (Hutter, 1997, p.227)



The ultimate objective is to educate and inform through dialogue and information sharing by engendering responsibility for regulatory performance, such that the performance of those regulated exceeds the expectations of the regulator. Responsive regulatory strategies presuppose however, that sanctions if necessary can be escalated. It may not always be possible to exercise the ‘nuclear option’ at all or, in any event, do so without risk. Sufficient expertise may not always exist on the part of the regulated community to understand what is required of them. This had led to a number of variants including the harnessing of self-regulatory regimes and management systems.

Some advocate a use of systematic organisational health and safety management systems (OHSM) focusing on the organisational structure and responsibilities, goals and management, across the organization as a whole. Its function is to assess and control risks and create inbuilt systems of maintenance and review (Gunningham and Johnstone, 1999; Bluff and Gunningham, 2003). The approach may be of more use in the context of large firms because of the existence of more extensive social control through peer-group pressure, and fear of being ostracized, a configuration that lends itself to the adoption of self-regulatory or co-operative approaches (Nielsen, 2007). By contrast, smaller firms may require considerable assistance to make the transition including guidance to overcome the possibility of information overload. (Aalders et. al., 1997)

BEYOND COMPLIANCE?

The development of responsive regulatory structures and its variants may be to establish processes that encourage behaviour extending “beyond compliance” (Ayres and Braithwaite, 1992; Gunningham and Johnstone, 1999) or that results in over compliance. The conventional view of compliance has been that business will only comply for instrumental reasons or where the regulations converge with and replicate the organizations own sense of civic responsibility (Gunningham et. al., 2004, referring to Wright, 1998, p.14). However, it is clear that instrumental

(especially economic) rationality is not the sole driver for compliance. Gunningham et. al 2005, p.308) suggest that with the greater acknowledgement and internalisation of notions of harm and risk many firms no longer perceive their legal and social obligations as synonymous. This may lead them to look to their reputation and the demands and expectations of the communities in which they operate and in doing so augment compliance.

We can identify so far that:

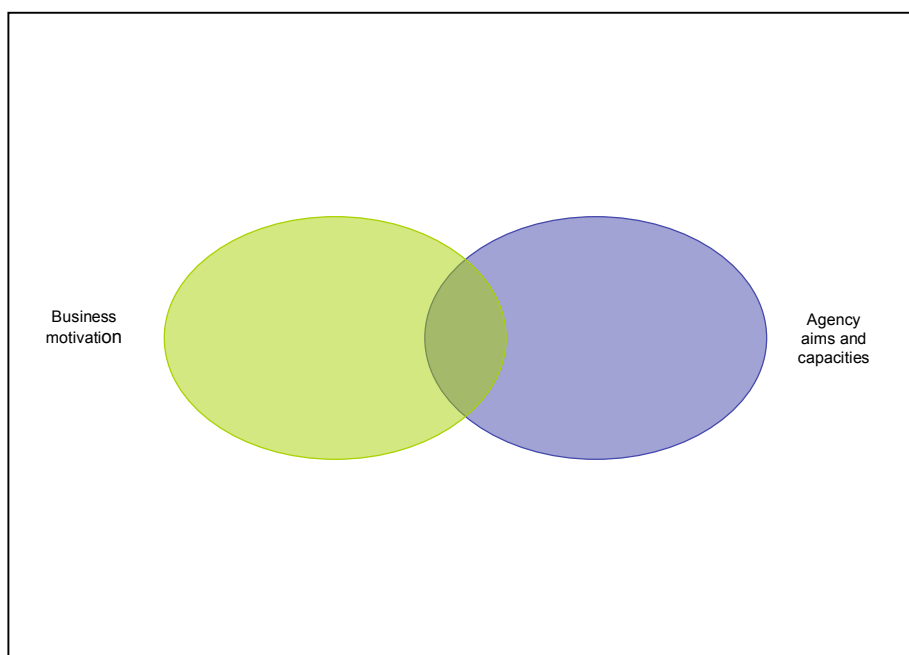
- Regulatory approaches will heavily influence compliance rates;
- Responsive and reflexive forms of enforcement mixing a range of instruments are more effective;
- In appropriate circumstances self-regulation (and its variants) can be an effective strategy to engender compliance;
- Compliance with the law should not be seen as a static concept and in some circumstances firms can and will exceed the regulatory agency's expectations.

In the next section we consider those features influencing effective compliance.

EFFECTIVE COMPLIANCE

In its 2005 Report the OECD note that compliance failures may derive from failures in design and failures in implementation. Addressing the correct issues and desired outcomes are, of course, fundamentally important. Identifying the appropriate regulatory mix of instruments (including selecting efficient tools that are proportionate to the regulatory aim), minimising complexity and overly legalistic regulation (which can reduce confidence in the regulations) and eliminating as far as possible the existence of competing policies or regulatory instruments are all of vital importance. Further the OECD suggest that costly regulation (where the costs of compliance are too high) can lower compliance rates as can information or technological deficits.

Table 4: The location of the greatest likelihood of compliance



The implementation failures identified by the OECD (2005) included:

- failures to monitor;
- procedural injustice and deterrence failures (where high rewards exist for non-compliance);
- failures in confidence in regulatory agencies, government or the rule of law;
- social factors that may motivate or de-motivate (including the perceptions of those being regulated regarding 'good citizenship', and respect for the law);
- change resistance, and
- successful or unsuccessful working relationships between field inspectors and managers.

The effectiveness of the compliance or enforcement strategy can be viewed as a small subset connecting firms' motivation for compliance and regulators' organizational capacities and choice of regulatory instrument. This is illustrated in Table 4 above.

Compliance and enforcement strategies that are cost effective and set feasible goals, through the adoption of efficient and fair regulation are more likely to enhance compliance behaviour. As the Hampton Report (2005) argued, "Efficient enforcement can support compliance across the whole range of business".⁴¹ Feedback and review are important mechanisms to address the required corrections in performance and resource allocation (Moe, 1985; OECD, 2005). Identifying and profiling the target community is essential to effective compliance. The regulated community may include government bodies, large and small corporations, and industry sectors, individuals and not-for-profit organisations.

Both UK and trans national policy⁴² make reference to the Netherlands 'Table of Eleven' indicators of the aspects of spontaneous compliance and sanctions. These are listed below

Table 5: Table of Eleven: Ministry of Justice (the Netherlands) and the Erasmus University, Netherlands (2004).⁴³

<ul style="list-style-type: none">• Aspects of spontaneous compliance<ol style="list-style-type: none">1. Knowledge of the regulation2. Costs of compliance/benefits of non-compliance.3. Degree of business and popular acceptance of the regulation4. Loyalty and natural obedience of the regulated firm5. Extent of informal monitoring• Aspects of monitoring<ol style="list-style-type: none">6. Probability of report through informal channels7. Probability of inspection8. Probability of detection9. Selectivity of the inspector• Aspects of sanctions<ol style="list-style-type: none">10. Chance of sanctions11. Severity of sanctions

⁴¹ Hampton *Reducing Administrative Burdens: effective inspection and enforcement* March 2005, p.5.

⁴² See Hampton (2005), OECD (2005)

⁴³ http://www.handhavenopniveau.nl/Images/T11_Engels_tcm9-20432.pdf De 'Tafel van elf': Beknopte toets voor de handhaafbaarheid van regels, Ministerie van Justitie (Expertisecentrum Rechtshandhaving), November 2004.

An adoption of prosecution alone as a strategy is unlikely to be an efficient or effective strategy to secure compliance. Intelligent enforcement can improve compliance but this demands an awareness of organizational and cultural factors

THE HSE LITERATURE

A significant amount of work has been undertaken or commissioned by the HSE on aspects of compliance. They extend to considering sector specific effects of different legislation e.g. Hanson et al.'s (1998) review of the 'Six Pack' regulations, and an evaluation of the Noise at Work Regulations (Honey et al. 1996). Further there appears to be a wealth of recent empirical research, which could usefully inform specific aspects such as motivational compliance. Examples of these include RR589⁴⁴ (which pointed to the importance of health and safety risk to business perceptions) and RR593⁴⁵, considering whether there has been an increase in claims for damages arising from occupational injury or ill health for breaches of the 1999 Regulations, and, if so, the extent of that increase. RR586⁴⁶, is especially pertinent to compliance by demonstrating "...the potential of local authority regulators to work in partnership with their HSE peers to improve health and safety conditions in high-risk sectors." (paragraph 8.1 p.59). RR578⁴⁷, again has the potential to inform empirically many of the themes contained in this report, as does, "Health and safety in public sector construction procurement"(RR556). Obviously it has not been possible to explore every HSE publication in detail given the focus of this study. However, from the preliminary search undertaken of the HSE's search engine, it would seem that there exist many individual studies, which although ostensibly of tangential relevance, in combination might provide a much clearer picture of the specific regulatory and compliance domain.⁴⁸

The HSE literature focusing specifically on compliance reveals a number of studies. Generally these seem not to engage with identifying or defining what compliance is. One key report, RR334 – "An evidence based evaluation of how best to secure compliance with health and safety law", used the HSE's Revitalising Health and Safety (RHS) Action Plan to map the motivational levers for compliance onto organization types. This, of itself, is an ambitious project. Whilst the research is extensive (the methodology included the use of a postal based questionnaire), its objective appeared not to engage in detail with the conceptual underpinnings informing the notion of compliance, nor indeed the impact of different regulatory enforcement styles. These factors detract somewhat from those objectives addressing the issues of how to amplify the impact of enforcement and its deterrent effects and the adoption of innovative penalties. The literature review contained within suggests that reputational effects and deterrence will shape business' compliance. Whilst it remained unclear how supply chain factors were applied and impacted upon compliance, insurance was seen as a significant motivating factor, where the costs of ill-health or injury are borne by the insured, including through employers' liability insurance.

⁴⁴ *Work and Enterprise Panel 2: Business survey, (a cross-sectoral survey).*

⁴⁵ *A survey of changes in the volume and composition of claims for damages for occupational injury or ill health resulting from the Management of Health and Safety at Work and Fire Precautions (Workplace) (Amendment) Regulations 2003.*

⁴⁶ *An evaluation of the local authority programme joint authorisation pilot project: Transfer of enforcement responsibilities in the motor vehicle repair and dry-cleaning sectors.*

⁴⁷ *"Health and safety in the small to medium-sized enterprise".*

⁴⁸ *The HSE would undoubtedly derive some benefit from undertaking a comprehensive review of its publications.*

SUMMARY AND CONCLUSION

The primary focus of much of the literature on compliance is to describe and explain the nature of adherence to the regulatory rules or governmental objectives by those regulated. Using economic models can be problematic as they tend to simplify an area that shows high degrees of variability. Further the translation into metrics of the social and motivational dimensions of regulatory compliance poses significant challenges.

Compliance practices may be better understood by reference to the broad environment and the regulatory context within which those subject to regulation carry out their enterprises. This is influenced by the activities of regulatory agencies and the actual design of the regulatory rules or standards themselves. For this reason the empirical socio-legal literature on compliance offers crucial insights into why certain approaches may work more effectively than others.

The existence of regulators' limited capacities means that they cannot succeed in attaining every regulatory objective nor in securing total compliance. From the perspective of the regulatory agency both the policy task and organizational imperatives will significantly affect compliance outcomes. The presence of stringent standards will not necessarily be relied upon to any greater degree by regulatory agencies in its quest for compliance outcomes. Although highly precise rule-based standards might be suggestive of more rigid enforcement and thus compliance, empirical evidence suggests that this is not the case and that field inspectors particularly will still resort to a use of discretion. Thus, a presence of clear rules, may inform enforcement activity but this does not necessarily translate into more effective compliance. Additionally the existence of legally enforceable third party rights may shape compliance practice.

Whilst scholars have shown that regulated bodies may rationally find it in their own interest to perform at least minimal compliance to regulation regardless of the enforcement style adopted, the synergy of activity between regulator and regulated communities will significantly influence compliance levels. Legal compliance by enterprise is more common than might be expected, given the low level of formal enforcement and legal sanctions. Many firms, it appears, are not closely attentive to the actual incidence and risk of sanctions, and often compliance is not closely related to perceived risk of punishment for non-compliance. By adopting a variety of strategies and processes, and being sensitive to the broad environment within which they function, regulators may enhance the compliance outcomes achieved. Efficient and effective compliance most usually involves the use of a variety of enforcement processes.

Regulators may face difficulties enforcing regulations depending upon their form and content. Similarly, organizations face problems complying with regulation for a number of reasons. Not all may be attributable to wilful default. The motivation for compliance (or otherwise) will influence strongly the effectiveness of the enforcement strategy adopted and vice versa. The broad environment within which the agency and regulated community operate and the motivations and responses of those being regulated are equally important to the shaping of compliance practice. Different contexts will shape compliance motivations, as will the framing of the regulatory situation and the regulatory tools used. Whilst legal and economic motivations are important, both the tangible and intangible motivations for compliance, the level of standards set and the way these are implemented will influence compliance levels. Thus the social and normative construction of the regulations is contingent upon the broad environment in which the framework is embedded.

The response of enterprise will be influenced by an existence of highly complex external and organizational pressures where the regulations themselves are but one signal. This will result in firms responding differently to enforcement strategies. This should lead to variety and variability in the structuring of regulatory concerns and imperatives.

Only where business motivations and the regulatory aims and capacities intersect is compliance more likely to be effective. Even here it cannot be guaranteed that appropriate levels of compliance will be achieved. Thus, knowledge and capacities of both regulator and regulated in addition to broadly cultural factors will influence the effectiveness of different compliance strategies.

The factors or variables influencing compliance are many. Some are closely related to the drafting of the legal rules (whether those donating the agency's mandate or the regulatory rules or standards themselves). Others, also integral to the design of the legal system will include whether rights are granted or duties imposed on the regulated community or if legal rights of intervention are given to third parties. Aside from those issues specifically relating to the formal laws creating the regulatory domain and the inherent difficulties associated with drafting the legal rules themselves, many other important determinants can be identified from the literature. These include the agency's organizational configuration and *modus operandi*. One important focus currently is to consider the motivations that drive business to comply with regulation. These include:

- the sanction or penalty imposed;
- firms' perception of the legitimacy of the regulations;
- the organisational structure of the firms being regulated;
- the size and the configuration of the industry to which the enterprise belongs, and
- the regulatory environment itself (including the economic climate and whether the interests of business converge with those of the regulatory agency).

Variation exists among firms in their response to similar regulatory standards, and some will, contrary to simple economic models, institute compliance measures that go well beyond those required by legal rules.

More responsive regulatory forms including increasing the range of regulatory responses whether the provision of advice and guidance, persuasion and bargaining, negotiation, enhanced surveillance, pressure, negotiation and scrutiny through to the use of more formal and coercive techniques will enhance compliance responses if used intelligently. Forms of communication (including personal communication) can be effective compliance tools and proactive approaches not only shape compliance behaviour but will influence enforcement allocation.

Regulatory arenas are complex and multifaceted. Levels of compliance are variable and are influenced by numerous factors only some of which the regulatory agency can control. Agency action needs to be informed by the configuration of the regulatory domain, the businesses they interact with and the latter's motivations for action. Variation in compliance will be influenced by these factors as much as the design of the regulations the agency seeks to enforce. To enhance compliance levels agencies need to be sensitive to the context within which they undertake their activities, their target audience and to the varying competencies and resources of those being regulated and have some awareness of those external resources (e.g. third party actors) that may be enlisted. By choosing a mix of regulatory styles appropriate to the context and being intelligent in the use of the tools of enforcement available to them, regulators may be more effective and efficient in their objectives.

BIBLIOGRAPHY

- Aalders, M. and Wilthagen, T., "Moving beyond Command and Control: Reflexivity in the Regulation of Occupational health and Safety and Environment." (1997) 19(4) *Law and Policy* 415-443.
- Ackerman B., A., Rose-Ackerman, S., Sawyer, J., R., and Henderson D., W *The Uncertain Search for Environmental Quality*. The Free Press, New York 1974.
- Atlas, M., K., "Enforcement Principles and Environmental Agencies: Principal-Agent Relationships in a Delegated Environmental Program." (2007) 41(4) *Law & Society Review*, 939-980.
- Atlas, M., K., "Rush to Judgment: An Empirical Analysis of Environmental Equity in U.S. Environmental Protection Agency Enforcement Actions," (2001) 35 *Law & Society Review* 633-82.
- Ayres I. and Braithwaite J., *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, Oxford 1992.
- Baldwin, R., *Rules and Government*. Clarendon Press, Oxford 1995.
- Baldwin, R., "The New Punitive Regulation" (2004) 67(3) *Modern Law Review* 351-383.
- Baldwin, R., "Is better regulation smarter regulation?" (2005) *Public Law* 485-511.
- Baldwin, R. and Cave, M., *Understanding regulation : theory, strategy, and practice*. Oxford University Press, Oxford 1999
- Baldwin, R., Hood, C., Rothstein, H., "Assessing the Dangerous Dogs Act: When Does a Regulatory Law Fail?" (2000) *Public Law* 282-305.
- Bardach, E. and Kagan, R., *Going by the Book: the Problem of Regulatory Unreasonableness* Temple University Press, Philadelphia 1982.
- Becker, Gary, "Crime and Punishment: An Economic Approach," (1968) 76 *Journal. of Political Economy* 169.
- Bibbings R., RoSPA EU OSHA Conference 16/10/1998
[http://osha.europa.eu/publications/conference/19981016/index_2.htm/view?searchterm=compliance] (accessed 30 November 2007).
- Black, D., Mileski, Maureen (eds.) *The social organization of law*. Seminar Press, New York 1973.
- Black, D., *The behavior of law*. Academic Press, New York, 1976.
- Black, J., *Rules and Regulators*. Clarendon Press, Oxford 1997.
- Bluff E., and Gunningham N., "Principle, Process, Performance or What? New Approaches to OHS Standards Setting" July 2003 paper conference Australian OHS Regulation for the 21st Century, National Research Centre for Occupational Health and Safety Regulation & National Occupational Health and Safety Commission, Gold Coast, July 20-22, 2003.

<http://ohs.anu.edu.au/publications/pdf/wp%209%20-%20Bluff%20and%20Gunn.pdf>
<http://www.corporateaccountability.org/dl/Directors/reviewjames.pdf> (accessed 23 January 2007).

Braithwaite, J., *To Punish or Persuade: Enforcement of Coal Mining Safety*. State University NY Press, Albany 1985.

Braithwaite, J., *Restorative Justice and Responsive Regulation*. Oxford University Press, Oxford 2002.

Braithwaite, J., and Makkai, T., “Trust and Compliance” (1994) 4 *Policing and Society* 1-12.

Braithwaite, J., Walker, J., and Grabosky, P., “An enforcement taxonomy of regulatory agencies” (1987) 9(3) *Law and Policy* 323-51.

Braithwaite, V., “Responsive Regulation and Taxation” (2007) 29(1) *Law and Policy* 3-10.

Braithwaite, V., Murphy K., and Reinhart, M., “Taxation Threat, Motivational Postures and Responsive Regulation” (2007) 29(1) *Law and Policy* 137-158.

Carson, W. G., “Some Sociological Aspects of strict liability and the enforcement of factory legislation” (1970) 33(4) *Modern Law Review* 396-412.

Committee on safety and Health at Work, *Safety and Health at Work*. The report of the Robens Committee 1970-1972. Cmnd 5034., HMSO June 1972.

Corneliussen, F., “The Impact of Regulations on Firms: A Case Study of the Biotech Industry” (2005) 27(3) *Law and Policy* 429-449.

Cranston, R., *Regulating business : law and consumer agencies*. Macmillan, London 1979.

Davis, K. C., *Discretionary justice: a preliminary inquiry*. University of Illinois Press, Urbana, Ill., 1969.

Dawson, S., Willman, P., Clinton, M., and Bamford, A., *Safety at Work: the Limits of Self-Regulation?* Cambridge University Press, Cambridge 1988.

Decker, Christopher S., “Do Regulators Respond to Voluntary Pollution Control Efforts? A Count Data Analysis.” (2005) 23 *Contemporary Economic Policy* 180–94.

Di Mento, Joseph, F., *Environmental Law and American Business: Dilemmas of Compliance* Plenum, NY 1986.

Edelman, L. E., Petterson, S., Chambliss, E., and Howard, S. E., “Legal Ambiguity and the Politics of Compliance: Affirmative Action Officers’ Dilemma” (1991) 13(1) *Law and Policy* 73-97.

Fairman, R., and Yapp, C., “Enforced Self-Regulation, Prescription, and Conceptions of Compliance within Small Businesses: The Impact of Enforcement” (2005) 27(4) *Law and Policy* 491-519.

Fairman, R., and Yapp, C., “Compliance with food safety legislation in small and micro-businesses: enforcement as an external motivator”, (2004) 3 *Journal of Environmental Health Research* 44-52.

HSE Research Report RR366, Fairman, R., and Yapp C., *Making and impact on SME compliance behaviour: An evaluation of the effect of interventions upon compliance with health and safety legislation in small and medium sized enterprises* 2005.

Fanshawe, T., "The interrelationship between environmental regulators, small and medium sized enterprises and environmental help organisations", In Hillary R (ed.) *Small and Medium Sized Enterprises and the Environment*, Greenleaf Publishing, Sheffield 2000.

Favaro, C., and Davillerd, M., "Safety practices and risk attitudes in French small companies" 1997 in *Advances in safety and Reliability* (1997) 1 Elsevier Science 105-113 and National Research and Safety Institute, Pergamon, Oxford.

Fenn, P., and Veljanovski, C. G., "A positive economic theory of regulatory enforcement." *Economic Journal* (1988) 98, 1055-1070.

Fisse B., and Braithwaite, J., *Corporations, Crime and Accountability* Cambridge University Press, Cambridge 1993.

Food Standards Agency *Wine Standards Enforcement Policy Consultation Document* (June 2007) <http://www.food.gov.uk/multimedia/pdfs/winestandards2007.pdf>. (accessed 15 February 2008).

Friedland, M. L., (ed.) *Securing compliance: Seven Case Studies*. University of Toronto Press, Toronto, 1996.

Genn, H., "Business responses to the regulation of health and safety in England (1993) 15(3) *Law and Policy* 219-234.

Gerstenfeld, A. and Roberts, H., "Size matters: barriers and prospects for environmental management in small and medium sized enterprises", in Hillary, R., (ed.) *Small and Medium Sized Enterprises and the Environment*. Greenleaf publishing Sheffield, 2000.

Grabosky, P. & Braithwaite, J., *Of Manners Gentle: Enforcement Strategies of Australian Business Regulatory Agencies*, Oxford University Press, Oxford in association with Australian Institute of Criminology, Melbourne. 1986.

Gray W. B., and Shadbegian, R. J., "When and Why do Plants comply? Paper Mills in the 1980s" (2005) *Law and Policy* 238-261.

Gray, W. B., and Deily, Mary E. Compliance and Enforcement: Air Pollution Regulation in the U.S. Steel Industry (1996) 31 *Journal of Environmental Economics and Management*, 96-111.

Gray, W. B. and Scholz, J.T., "Does Regulatory Enforcement work?: A Panel Analysis of OSHA Enforcement." (1993) 27 *Law and Society Review* 177-213.

Gunningham, N., 'Negotiated non-compliance: a case study of regulatory failure', (1987) 9(1) *Law and Policy* 69-96.

Gunningham, N., "Thinking about regulatory mix: regulating occupational health and safety, futures markets and environmental law." in Grabosky and Braithwaite (eds.) *Business Regulation and Australia's Future* Australian Institute of Criminology 1993.

Gunningham N., “GFSD on Economic Aspects of Environmental Compliance Assurance Compliance, enforcement and innovation” OECD, Paris 2004.

Gunningham, N., and Grabosky, P., *Smart regulation designing environmental policy*. Oxford University Press, Oxford 1998.

Gunningham N., and Johnstone R., *Regulating workplace Safety: system and sanctions* Oxford University Press, Oxford 1999.

Gunningham, N., and Kagan, R., “Regulation and Business Behavior” (2005) 27(2) *Law and Policy* 213-218.

Gunningham, N. and Rees, J., “Industry self-regulation: An Institutional Perspective”(1997) 19(4) *Law and Policy* 363-414.

Gunningham N., Thornton, D. and Kagan, R., “Motivating Management: Corporate Compliance in Environmental Protection” (2005) 27(2) *Law and Policy* 289-316.

HSE Contract Research Report CRR 385/2001 *The impact of the HSC/E:A review*. Health and Safety Executive HMSO London 2001.

HSE Report RR188 *Survey of compliance with Employers’ Liability Compulsory Insurance (ELCI) Act 1969* Health and Safety Executive HMSO, London 2003.

HSE Report RR334 *An evidence based evaluation of how best to secure compliance with health and safety law*. Health and Safety Executive HMSO, London 2005.

HSE *Directors’ Responsibilities for Health and Safety – A Peer Review of Three Key Pieces of Published Research* Prepared by Middlesex University Business School for the Health and Safety Executive <http://www.corporateaccountability.org/dl/Directors/reviewjames.pdf> (accessed 15 February 2007) (contained within HSE Report RR 451 - *Directors’ responsibilities for health and safety: the findings of two peer reviews of published research*. Health and Safety Executive HMSO, London 2006).

HSE Report RR556 *Health and safety in public sector construction procurement*. Health and Safety Executive HMSO, London 2007.

HSE Report RR578 *Health and safety in the small to medium-sized enterprise*. Health and Safety Executive HMSO, London 2007.

HSE Report RR586 *An evaluation of the local authority programme joint authorisation pilot project: Transfer of enforcement responsibilities in the motor vehicle repair and dry-cleaning sectors*. Health and Safety Executive HMSO, London 2007.

HSE Report RR589 *Work and Enterprise Panel 2: Business survey*. Health and Safety Executive, HMSO, London 2007.

HSE Report RR593 *A survey of changes in the volume and composition of claims for damages for occupational injury or ill health resulting from the Management of Health and Safety at Work and Fire Precautions (Workplace) (Amendment) Regulations 2003*. Health and Safety Executive, HMSO, London 2007.

- Haines, Fiona “The Show Must Go On: The Response to Fatalities in Multiple Employer Workplaces,” (1993) 40 *Social Problems* 547–63.
- HM Treasury *Reducing Administrative Burdens: effective inspection and enforcement* (the Hampton Report) HMSO, London March 2005.
- Haines, F., and Gurney, D., “The Shadows of the Law: Contemporary Approaches to Regulation and the Problem of Regulatory Conflict” (2003) 25(4) *Law and Policy* 353-380.
- Hanson M., Tesh, K., Groat, S., Donnan, P., Ritchie, P. and Lancaster, R., *Evaluation of the Six – Pack regulations 1992*, Institute of Occupational Medicine, CRR 177. Edinburgh. HSE Books Norwich 1998.
- Hawkins K., *Environment and enforcement : regulation and the social definition of pollution*. Clarendon Press, Oxford 1984.
- Hawkins, K., “Enforcing Regulation: more of the same from Pearce and Tombs” (1991) 31(4) *British Journal of Criminology* 427-30.
- Hawkins, K., (ed.), *The Uses of Discretion* Clarendon Press, Oxford 1992.
- Hawkins, K., *Law as last resort : prosecution decision-making in a regulatory agency*. Oxford University Press, Oxford 2002.
- Hawkins, K. and Thomas, J. M., (eds.), *Enforcing Regulation*. Kluwer-Nijhoff, Hingham, Mass., U.S.A. 1984.
- Hillary, R., (ed.) *Small and Medium Sized Enterprises and the Environment*. Greenleaf publishing Sheffield, 2000.
- Honey, S., Hillage, J., Jagger, N., and Morris, S., *The Costs and Benefits of the Noise at Work Regulations 1989*. HSE contract research report IES, CRR 116, HSE, Sudbury 1996.
- Hood, C., James, O, Scott, C “Regulation of Government, Has it increased, should it increase, is it be diminished?” (2000) 78(2) *Public Administration* 283-304.
- Hopkins, A., *Safety, Culture and Risk*. CCH, Sydney 2005.
- Hopkins, A., *Making Safety Work: Getting Management Commitment to Occupational Health and Safety* Allen and Unwin, Sydney 2005.
- Hopkins, A., “Beyond Compliance Monitoring: New Strategies for Safety Regulators” (2007) 29(2) *Law and Policy* 210-225.
- Hutter, B. M. , *The reasonable arm of the law?: the law enforcement procedures of environmental health officers*. Clarendon Press, Oxford 1988.
- Hutter, B. M., *Compliance: Regulation and Environment* Clarendon Press, Oxford 1997.
- Hutter, B. M., *Regulation and risk: occupational health and safety on the railways* Oxford University Press, Oxford 2001.

- Hutter B. M., and Lloyd-Bostock, S., “The Power of Accidents: the social and psychological impact of accidents and the enforcement of safety regulations” (1990) 30(4) *British Journal. Criminology* 409-422
- Hutter, B., M., and Jones, C., *Business risk management practices: the influence of state regulatory agencies and non-state actors*. CARR Discussion Paper No 41, June 2006.
- Kagan, Robert A., “Understanding Regulatory Enforcement,” (1989) 11 *Law & Policy* 89–119.
- Kagan, Robert, “Regulators and regulatory processes” in Sarat, A., (ed.) *The Blackwell Companion to Law and Society*. Blackwell, Oxford 2004.
- Kagan, Robert A., “Regulatory Enforcement,” in David H. Rosenbloom & Richard D. Schwartz, eds., *Handbook of Regulation and Administrative Law*. Marcel Decker, New York 1994.
- Kagan, Robert A., and Axelrad, Lee, *Regulatory Encounters: Multinational Corporations and American Adversarial Legalism* University of California Press, Berkeley 2000.
- Kagan, R., A., and Scholz, J., T., “The “Criminology of the Corporation” and Regulatory Enforcement Strategies” in Hawkins and Manning (eds) *Enforcing Regulation*. 1984, pp. 67-95.
- Kagan, R., Gunningham, N., and Thornton, D., “Explaining Corporate Environmental Performance: How Does Regulation Matter?” (2003) 37(1) *Law and Society Review* 51-90.
- Kraakman, R., H., “Gatekeepers: The Anatomy of a Third-Party Enforcement Strategy” 1986 2(1) *Journal of Law, Economics and Organization* 53-104.
- Larsson, T., J., “Is Small Business a Safety Problem?” (03092002) http://osha.europa.eu/publications/conference/20020903/index_8.htm/view?searchterm=compliance (accessed 30 November 2007).
- Lingard, H., and Holmes, N., “Understandings of Occupational Health and Safety risk control in small business construction firms: barriers to implementing technological controls” (2001) 19 *Construction Management and Economics* 217-226.
- Loosemore, M., and Adonakis, N., “Barriers to implementing OHS Reforms – The experiences of Small Subcontractors in the Australian Construction Industry” (2007) 25(6) *International Journal of Project Management* 579-588.
- Magat, W. A., and Viscusi, W. K., “The effectiveness of EPA’s Regulatory Enforcement: the case of Industrial Effluent Standards.” (1990) XXXIII *Journal of Law and Economics* 331-360.
- Manning, P. K., *Symbolic Communication: Signifying Calls and the Police Response*. MIT Press, Cambridge, Mass 1988.
- May Peter J., “Compliance Motivations: Affirmative and Negative Bases” (2004) 37 *Law and Society Review* 41-68.
- May, Peter J., Winter, S., “Regulatory Enforcement and Compliance: Examining Danish Agro-Environmental Policy” (1999) 18(4) *Journal of Policy Analysis and Management* 625-651.

- McKendall, M., DeMarr, B., Jones-Ridders, C., “Ethical compliance programs and corporate illegality: Testing the assumptions of corporate sentencing programs” (2002) *Journal of Business Ethics* 367-383.
- Mendeloff J. and Gray, W. B., “Inside the Black box: How do OSHA inspections lead to reductions in workplace injuries?” (2005) 27(2) *Law and Policy* 219-237.
- Ministry of Justice of the Netherlands and the Erasmus University, Netherlands *Table of Eleven* 2004. http://www.sam.gov.lv/images/modules/items/PDF/item_618_NL_The_table_of_Eleven.pdf (accessed 30 November 2007).
- Moe, T., M., “Control and Feedback in Economic Regulation: the case of the NLRB” (1985) 79(4) *American Journal of Political Science* 1094-1116.
- Murphy K., “Regulating More Effectively: The Relationship between Procedural Justice, Legitimacy, and Tax Non-compliance.” (2005) 32(4) *Journal of Law and Society* 562-589.
- Niemeijer, B., “Urban land-use and building control in the Netherlands: Flexible decisions in a rigid system” (1989) 11 *Law & Policy* 121-152.
- Nielsen V., “Are Regulators Responsive?” (2006) 28(3) *Law and Policy* 395-416.
- Nielsen, V., “Differential Treatment and Communicative Interactions: Why the Character of Social Interaction is Important” (2007) 29(2) *Law and Policy* 257-283.
- Nielsen V., and Parker C., *The ACCC Enforcement and Compliance Survey: Report of Preliminary Findings* December 2005.
- OECD *Reducing the risk of policy failure: challenges for regulatory compliance*. OECD Publishing, Paris 2000.
- OECD *Assuring Environmental Compliance: A toolkit for building better environmental inspectorates in Eastern Europe, Caucasus, and Central Asia*. OECD Publishing, Paris 2005. [<http://www.oecd.org/dataoecd/61/62/34499651.pdf> 24 Feb 2005 (accessed 15 February 2008)].
- Parker, C., *The Open Corporation Effective Self-regulation and Democracy*. Cambridge University Press, Cambridge 2002.
- Parker, C., “The ‘Compliance’ Trap: The Moral Message in Responsive Regulatory Enforcement,” (2006) 40 *Law & Society Review* 591–622.
- Pearce, F. and Tombs, S., “Ideology, hegemony and empiricism: Compliance theories of regulation.” (1990) 30 *British Journal of Criminology* 423-443.
- Pearce, F. and Tombs, S., “Hazards, law and class: contextualising the regulation of corporate crime.” (1997) 6 *Social and Legal Studies* 79-107.
- Purchase, B., “The Political Economy of Voluntary Codes: Executive Summary” draft paper submitted at the Voluntary Codes Symposium, Office of Consumer Affairs, Industry, Canada and Regulatory Affairs Treasury Board September 1996.
- Reason, J., T., *Managing the Risks of Organisational Accidents* Ashgate, Aldershot 1997.

- Rees, J., *Reforming the Workplace: A Study of Self Regulation in Occupational Health and Safety*, University of Pennsylvania Press, Philadelphia 1988.
- Rees, J., *Hostages of Each Other: the Transformation of Nuclear Safety since Three Mile Island*. University of Chicago Press, Chicago 1994.
- Reiss, A., J., Selecting strategies of social control over organizational life. In K. Hawkins & J. M. Thomas (eds.), *Enforcing Regulation* Kluwer-Nijhoff Boston 1984, pp. 23-35.
- Reiss, A., J., "Compliance without coercion" (1985) 83(4) *Michigan Law Review* 813-819.
- Richardson, G. M., with Ogus, A. I., and Burrows, P., *Policing Pollution: A study of Regulation and Enforcement*. Clarendon Press, Oxford 1983.
- Sarat, A (ed.) *The Blackwell Companion to Law and Society*. Blackwell, Oxford 2004.
- Saksvik P. and Quinlan M., "Regulating Systematic Occupational Health and Safety: comparing the Norwegian and Australian Experience." (2003) 58(1) *Industrial Relations* 33-59.
- Scholz J., (1984) "Voluntary compliance and regulatory enforcement"(1984) 6 *Law and Policy* 385-404.
- Scholz, J., "Cooperative regulatory enforcement and the Politics of Administrative Effectiveness" (1991) 85(1) *American Political Science Review* 115-36.
- Scholz J., "Managing Regulatory Enforcement" in Rosenbloom, David H. & Schwartz, Richard D. (eds.), *Handbook of Regulation and Administrative Law*. Marcel Decker, New York 1994, pp.423-463.
- Scholz, J., "Enforcement Policy and Corporate Misconduct: The Changing Perspective of Deterrence Theory," *Law and Contemporary Problems* (1997) 60(3) 253-68.
- Scholz J., and Gray, W., "OSHA Enforcement and Workplace Injuries: A Behavioural Approach to Risk Assessment (1990) 3(3), *Journal of Risk and Uncertainty* 283-305.
- Shover, N, Lynxwiler, J., and Groce, S., and Clelland,, D., "Regional Variation in Regulatory Law Enforcement: the surface mining control and reclamation Act" in Hawkins and Thomas (eds.) *Enforcing Regulation* 1984,pp. 121-46.
- Simon, H., Theories of Bounded Rationality. In: C. McGuire and R. Radner, Editors, *Decision and Organization*, North Holland, Amsterdam 1972, pp. 161-76.
- Simon, H., A ., "Bounded Rationality and Organizational Learning" (1991) 2, *Organization Science* 125-33
- Sparrow, M., *The Regulatory Craft: Controlling Risk, Solving Problems and Managing Compliance*. Brookings Institution Press, Washington, D.C. 2000.
- Sparrow, M., *Imposing Duties: Government's changing approach to compliance*. Praeger, Westport Conn. 1994.
- Stigler, George, "The Optimum Enforcement of Laws," (1970) 78 *Journal of Political Economy* 526-36.

- Tyler, T. *Why people obey the law*. Yale University Press, London 1990.
- Veljanovski, C., Research paper to Oxford Centre Socio-legal studies. 1987.
- Walshe, K., "The rise of regulation in the NHS" (2002) 324(7343) *British Medical Journal* 967-970.
- Winter, Soeren C., and May P., J. "Motivation for Compliance with Environmental Regulations," (2001) 20 *Journal of Policy Analysis & Management* 675-98.
- Wright, M., S., *Factors Motivating Proactive Health and Safety Management*. HSE Research Report 179/88 Health and Safety Executive HMSO, London 1998.
- Wright, M., Marsden, S., Antonelli, A., *Building an evidence base for the Health and Safety Commission Strategy to 2010 and beyond: A literature review of interventions to improve health and safety compliance*. Research Report 198, Health and Safety Executive, Norwich 2004.
- Yeager, P., C., *The limits of law: the public regulation of private pollution*. Cambridge University Press, Cambridge 1991.

REFERENCES

- Braithwaite, J., and Drahos, P., *Global Business Regulation*. Cambridge University Press, Cambridge 2000.
- Cabinet Office BRTF (Better Regulation Task Force) (1999) *Regulation and small firms: a progress report*. London: Better Regulation Task Force, Cabinet Office Publications & Publicity Team. <http://www.brc.gov.uk/> (accessed 15 February 2007).
- Cohen, D., and Webb, K., (eds.) *Exploring voluntary codes in the Marketplace*. University of Calgary Press, Calgary; Carlton University Press, Ottawa, 2004
- Fisse, B., and Braithwaite, J., *The impact of publicity on corporate offenders*. State University of New York Press, Albany 1983.
- Gilliland, D. and Manning, K. C., “When do firms conform to regulatory control? The effect of control processes on compliance and opportunism” (2002) 21(2) *Journal of Public Policy and Marketing* 319-331.
- Grabosky, P. “Green markets: environmental regulation by the private sector”, (1994) *Law & Policy* 16 (4): 419-448.
- Gunningham, N. “Regulating small and medium sized enterprises” (2002) 14(1) *Journal of Environmental Law* 3-32.
- Hutter, B., M., “Variations in regulatory enforcement styles” (1989) 11(2) *Law and Policy* 153-74.
- Hutter, B., M., ‘The role of non state actors in regulation’, in F. Schuppert (ed.), *Contributions to governance*. Nomos, Berlin 2006.
- Hutter B., M. and Sorensen P., editors introduction (1993) 15(3) *Law and Policy* 169-174.
- Manning, P. K., Review of Braithwaite, J., *To Punish or Persuade* (1988) 28(4) *British Journal of Criminology* 559-61.
- McBarnet, D., and Whelan, C., “The Elusive Spirit of the Law: Formalism and the Struggle for Legal Control” (1991) 54 *Modern Law Review* 848-873.
- OECD, *The State of Regulatory Compliance: Issues, Trends and Challenges*, OECD Publishing, Paris 1999.
- OECD, *Reducing the Risk of Policy Failure: Challenges for Regulatory compliance*. OECD Publishing, Paris 2000.
- Pidgeon, N., Kasperson, R.E., and Slovic, P., (eds.) *The social amplification of risk*. Cambridge University Press, Cambridge 2003.
- Rosenbloom, David H. & Schwartz, Richard D. (eds.), *Handbook of Regulation and Administrative Law*. Marcel Decker, New York 1994.

Scholz J., "Reliability, Responsiveness and Regulatory Policy"(1984) 44 *Public Administration Review*145-153.

Vickers, I., Baldock, R., Smallbone, D., James, P., Ekanem, I. and Bertotti, M. *Cultural influences on health and safety attitudes and behaviour in small businesses*. HSE CRR 150/2003, HSE Books Sudbury 2003.

The determinants of compliance with laws and regulations with special reference to health and safety

A literature review

This report presents a review of the extensive body of socio-legal literature that exists to explain and understand the nature of compliance with regulation. It outlines how compliance has been seen in both academic and policy fields in order to describe and explain:

- (a) those themes important to assessing the determinants of compliance including the motivations for and interpretations of compliance behaviours;
- (b) how the literatures define compliance;
- (c) how scholars have identified the tools available to foster more effective regulatory compliance and enforcement strategies; and
- (d) those difficulties policy actors experience when seeking to achieve greater levels of regulatory compliance. The report draws extensively upon literature outside the domain of health and safety as a basis for understanding that area.

Socio-legal scholars have sought to triangulate the themes of regulation, compliance and enforcement to understand the deficits in achieving effective compliance behaviour. The report draws on that scholarship and in particular that relating to the topic of enforcement to provide insights into this sometimes neglected facet of policy-making. For reasons of space the report does not profess to provide a full exposition of the relevant literature but outlines those themes thought to be most relevant to understanding why compliance behaviour is not necessarily as comprehensive as might be thought.

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