

Tao of Ethics

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Chapter 1

Intuition and Rational Knowledge

A shrub close at hand
Looks larger than Vesuvius on the horizon
F.J. Sheed

Writing this book on reflections on moral philosophy has been influenced by a few events that are in many different ways related and complementary yet disparate and unique. One event occurred recently in the manner of a request from the library at the University of New York at Buffalo searching for a copy of a 1994 paper on social host liability. While copies are no doubt located in one of the many storage boxes in the attic, finding that one box with that one copy represented an unknown quantity of knowledge lost forever, except that the main arguments of the paper had been incorporated into Chapter 4 of *Law, Economics and Antitrust* in 2005 in the discussion on accident liability and deterrence. Once the library was informed and a copy of the book obtained, the main argument was revisited and has now been developed into a caring defendant's model in *Political Economy of Law* due for publication in the summer of 2009.

A second event occurred much earlier as a graduate at Oxford attending a public lecture by Amartya Sen wherein he developed arguments on optimal allocation by reference to a simple dispute over a bamboo flute. The lecture was part of a series of public discussions on a broad theme of moral philosophy that may have begun for him with the publication of *On Economic Inequality* in 1974. The Fable of the Bamboo Flute was incorporated into Chapter 1 of *Law, Economics and Antitrust* and will be explored further in the final draft of this manuscript. A final and third event arose with an invitation to guest edit a special edition of the *International Journal of Social Economics* on the theme of Kant scholarship and the economics of governance and regulation. This invitation dovetailed an invitation to write a short article on Confucianism with a focus on business and corporate social responsibility.

Is there any connection between these events? Our view of X depends on what we think it is, whether X is a person viewed as a plaintiff or a defendant, whether X is a person ranked by income and social class or whether X is the right way in a moral sense or X is an action to adhere to or defect. The 'tao' of ethics literally means 'the way' of ethics. In other words, we interpret 'the way' as man's destiny, and man's destiny depends not only on his own actions as captured by Sheed (1953) 'responsibility is of man's essence (p18)' but also on personal experience. Capra (1985) explores in great detail the history of Eastern philosophies and their connection with modern physics. Taoists, he argued 'have a mistrust of reason and logic relying in many cases on experience (p41)'. Our interest is primarily centred on exploring the way of moral philosophy, if that is at all possible, by exploring the complementarities between Western and Chinese philosophies. This allows us to expand the philosophic meaning of the word 'ethics' from a moral choice between right v wrong to include a discussion of the good life or the life worth living. An answer may be found in the

role of self-interest in explaining decisions and actions and the relegated treatment of altruism and altruistic motives. The premise is that there may be a tao of ethics with altruism at its core, an altruism that can best be understood from the perspective of Kantian responsibility by fulfilling one's duty. To explore the entire scope of modern philosophy would require many volumes and it is not the intention of this manuscript to do so. Rather the manuscript is less ambitious and focuses on ethics and the philosophies of life. In particular, we emphasise the intuitionism of Kant coupled with the Chinese philosophers concern with direct experience of reality. Our moral theory starts from the premise that morality is entirely within the individual, and that moral values do not arise from actions dependent on consequences of an act, Sahakian (1966, p45). Our criterion of morality, the means of testing whether an act is moral or not, will be benchmarked against an individual's altruistic motives. The fact that the motives may evolve or morph through time or by experience is germane to the discussion across the chapters.

The Rational and the Intuitive

In a Kantian world we find ourselves in the situation of possessing reason, being able to act according to our own conception of rules. We have the ability to choose the principle to guide our actions. We must exercise our will and our reason to act. Will (or intention) is the capacity to act according to the principles provided by reason. Reason assumes freedom and conceives of principles of action in order to function. The fact that we can choose between alternate courses of actions (we are not determined to act by instinct or reason) introduces the possibility that there can be better or worse ways of achieving our ends and better or worse ends, depending upon the criteria we adopt. The presence of two different choices adds a moral dimension to the decision making..

The two modes of consciousness, referred to as the rational and the intuitive, sit apart in Western philosophy. In contrast, Chinese philosophy, for example, Taoism and Confucianism, has evolved over the centuries by emphasising the complementary nature of the intuitive and the rational and represented them by the yin and yang respectively. Chinese philosophers refer to 'an experience of reality that transcends not only intellectual thinking but also sensory perception (Capra, p36). The tao of ethics would bundle altruistic motives into decision making not in terms of kindness but in terms of rightness. The belief that someone else is doing something about X morphs into a duty for anyone to do anything about X so that no one is doing nothing about X. Therefore we act in accord with our reason, and to act unreasonably is to allow every influence to prevent us doing X we know we ought to do. There are many explanations for and causes of unreasonable behaviour discussed in a burgeoning literature. We narrow the focus of enquiry to a discussion of Kantian responsibility and duty and work from the premise that Mr A has a duty to do X. Kindness in doing X has been identified as Samaritan or altruist from biblical times. But responsibility is more than that. The line of St Paul Romans vii 19 - 'it is not the good my will prefers but the evil my will disapproves, that I find myself doing' – provides an insight into responsibility as a reasonable and universal act.

A Caring Defendant

The arguments in the 2005 book on accident deterrence and liability worked from a premise that a rational tortfeasor would continue to violate the law as taking due care is *not* a dominant strategy in the sense that it is the best available action regardless of what the other party does. There would be no need for a Court, for example, to rationalise a party's action as being optimal given the other party's action or given the Court's belief about the other party's action. No matter what the party (the tortfeasor) believes her opponent (the victim) will do or no matter what the opponent in fact does, she will not deviate from a dominant strategy. In the absence of a dominant strategy of taking due care, strict liability may be the preferred rule of liability for a deviant tortfeasor. The argued continued that strict liability is more efficient when there is unilateral precaution, and only one party is looked to for precaution, the party with no dominant strategy to take due care.

A new set of arguments have been marshalled into *Political Economy of Law*, influenced in part by an earlier concept developed in the analysis of accident deterrence - an *elasticity of due care* co-efficient. Given this co-efficient we can think of deterrence as varying along a single dimension, $0 < \alpha < 1$: for the policy-maker $\alpha > 0$ if increased accident prevention costs increase due care, and for the tortfeasor $\alpha > 0$ if increased expected costs increase due care. The coefficient represents the strength of the deterrence measures. Law enforcement is a policy tool that affects the elasticity of due care, and thus the efficiency of law. By determining the effects of changes in policy tools on changes in the elasticity, we can determine the efficiency effects of a different policy option. If the tortfeasor is rational, his or her behaviour would hinge upon a comparison of expected costs and benefits. If, however, he or she is uninformed about punishment and detection rates, then they may not respond in the desired way. There are problems of bounded rationality and there are problems of opportunism in the functioning of law - law has its limits.

We consider a defendant-plaintiff model where the asset of unknown value is a commoditised 'no crime committed' good. Could one intuitively inform a debate on crime prevention by superimposing the economics of inter-generational transfers in that one individual, a defendant, trades with another, a plaintiff without recourse to the law. The essence of how and why any trade should take place between a defendant and a plaintiff has never really been discussed within the law and economics paradigm. Within the economics literature, however, the trading of young and old has been reviewed since Samuelson's no-trade equilibrium. In time t_0 why should the victim trade with the defendant, when potential victims take precautions not to become a victim; and why should a criminal defendant trade with the victim when there is no guarantee of compensation at least equal to the opportunity cost of the crime?

In the political economy of law, the good exchanged has an intrinsic value that differs for each plaintiff though it may have a given value for the defendant. The caring defendant is prepared to desist and receive a payment. From whom the payment is made is irrelevant to the defendant - it could be plaintiff A or B. The defendant care model is an exchange of a commoditised 'no crime committed' good that has a correspondence value and not a functional value, in that it is not that $y_1 = f(x_1)$ but

rather $y_1 = f(x_n)$, where $n = 1, 2, 3, \dots, n$. Across the literature, scholars have considered preferences that take into account attitudes toward the behaviour and intentions of others. When more agents opt for reciprocal exchange, markets thin and it becomes optimal for agents to engage on personal exchange.

People commonly engage in activities that are costly to themselves and that primarily benefit others. Examples are cited of volunteers, helping strangers, giving to charities, donating blood, joining rescue squads. The literature looks at the broader set of motives that shape people's social conduct, and how these motives interact with each other and the economic environment. Peoples' actions do indeed reflect 'a mix of altruistic motivation, material self-interest and social or self-image concerns...[crucially], altering any of the three component of motivation, for instance through the use of extrinsic incentives or a greater publicity given to actions, changes the meaning attached to pro-social (or antisocial) behaviour and hence feeds back into the reputational incentive to engage in it (Benabou and Tirole. 2006. p1674)'.

Sharing the Costs of a Decision

Kant believed that the essence of morality was to be found in reason: it was by a process of rational deduction (as distinct from religious faith) that one could discover the basis of right and wrong. In our discussion of the *Fable of the Bamboo Flute* in Chapter 1 of *Law, Economics and Antitrust*, you the reader are the fact-finder, the arbiter of a dispute between three individuals over ownership of a bamboo flute. As a fact-finder, you arrive during the dispute and the three individuals unanimously appoint you as the arbiter. The resolution of this allocation dispute, which is quintessentially a dispute about ownership of a resource, is contingent on the information available to you as arbiter. Your actions are mutually exclusive, and your choice, once made, is irreversible.

If the information set available to you is simply that the first individual 'made the flute', and if you were persuaded by a Marxian-Nozickian (1974) rule of allocation, you would allocate the flute to the first individual. If, however, the information set is that the second individual 'can play the flute', and if you were persuaded by an older Bethamite-Utilitarian (1823) rule, you would allocate the flute to the second individual. And finally, if the information set available to you is that the third individual is 'the poorest individual', and if you were persuaded by a Rawlsian (1971) rule, you would allocate the flute to the third individual. Your decision is based on ethical rules and inevitably the rules are value-based, yet they are an integral part of your decision-making as an arbiter.

A more general version of the problem of the *Fable of the Bamboo Flute* is that because there are typically many quite different efficient outcomes to any resource-allocation problem, efficiency alone may not be strong enough a criterion to give very clear explanations. However, when the simplifying condition of no wealth effects is satisfied, only one pattern of behaviour is consistent with efficiency, and that is the pattern that maximises the total value created in the transaction, Milgrom and Roberts, (1992, pp35-38). This is the value maximising principle and it is a good example of the application of the Bethamite-Utilitarian rule to the resolution of an allocation problem. It focuses on the end-state.

Table 1.1: To Whom Do We Allocate?

	Made the Flute	Can Play the Flute	Very Poor
Individual A	✓		
Individual B		✓	
Individual C			✓
Outcome	A gets the flute	B gets the flute	C gets the flute

There is however, at least a fourth scenario to the Fable. The fact-finder arrives at the dispute and all three pieces of information are made available to the fact finder to assist in reaching a resolution. In this particular context the fact finder is defined as information constrained or 'bounded rational' in the exercise of his or her decision-making, Simon (1957). If the preferences of the three individuals display no wealth effects, Coase (1960) proposed that the outcome on which they agree will not depend on their respective bargaining power nor will it depend on what assets each owned when the dispute began.

Rather, efficiency alone determines the outcome. The principle that efficiency alone can determine the outcome has evolved within law and economics as a celebrated proposition, known as the *Coase theorem*. The other factors can affect only decisions about how the costs and benefits are to be shared. Therefore the relationship between efficiency and ethics becomes complex. In many cases, ethical norms evolve to sustain cooperative behaviour 'and thus to promote successful functioning of social institutions', Shleifer (2004). For example, the ethical condemnation of corruption is based on the idea that a society functions better when its government works fairly.

Law is the embodiment of rules that look at the end-state of a dispute, for example, a dispute over an agreed contract or a dispute over property rights. But is there a right of fair outcome to the dispute? Is law fair? If the decision maker is a rule utilitarian then she will work according to the maxim that if everyone acts according to the same rule, social welfare (the sum of utilities) will be maximised. Within law and economics, game theory has recently provided a new dimension to rational deduction. Games are rule-governed social interactions characterised by strategic interdependency, Baird (1994). In an ultimatum game outlined in Law, Economics and Antitrust a player (the proposer) is asked to decide how to split £10 by making an offer to another player (the responder). If the offer is rejected, both get zero. Self-interested rationality predicts that the responder should accept any offer greater than zero. The proposer, anticipating acceptance, should offer the minimum amount. In some experiments, the lowest offer was £1, and the highest was £5.

Précis on Kant

The economics of governance is an important topic for economists and other social scientists. Increasingly more aspects of the topic are raising issues germane to philosophy and a Kantian perspective. A key driver of the literature on the economics of 'good' governance is the search for an ethical code of practice within an organisation. The debate centres on answering the question: what is business ethics?

Is it a behavioural rule, and thus a company's value is aligned to its behaviour or is it an ethical standard to be adhered to by all.

While the notion of Kant as a rule-bound philosopher has generally been dissipated by Kant scholars, Kant did lay down the categorical imperative in three forms, the first of which urged us to act so that our acts can be understood to exemplify universal laws. Kant is relevant to governance and economic regulation. Underlying Kant scholarship are the notions of reason and the postulates of pure practical reason which Kant described as 'as good as knowledge'. Arguments related to the economics of governance and regulation - and in terms of globalization - couched in terms of Kants' theses about 'transcendental publicity,' 'cosmopolitan Law,' and 'universal hospitality,' may be relevant..

Kants' theses present an opportunity to bridge the moral philosophy of Kant with the Confucian philosophy of social organisation in marshalling arguments on an ethical foundation for corporate governance. With an emphasis on duty within the organisation or firm, Kant is the primary proponent of what is called deontological ethics - the study of duty. Kant believed that the sole feature that gives an action moral worth is not the outcome that is achieved by the action, but the motive that is behind the action. Therefore, in Kant's view, moral actions are actions where reason leads rather than follows and, actions where we must take other beings that act according to their own conception of the law, into account.

The categorical imperative is Kant's famous statement of this duty: 'Act only according to that maxim by which you can at the same time will that it should become a universal law'. In Kantian ethics freedom plays a central role because the possibility of moral judgement presupposes it. Without the assumption of freedom, reason cannot act. For example, if humans were completely causally determined then any attempt to conceive of a rule that prescribes the means by which some end can be achieved is pointless. Having the ability to make judgements and apply reason puts us outside that system of causally necessitated events. In its intellectual domain, reason must think of itself as free. An extension of this philosophy is therefore that human beings act as a means to other ends than to an end in itself, Chryssides and Kaler (1996).

It is this desire for a 'means to other ends', which largely formed the break down of corporate governance in early 2000's. It can be argued that a key area of Kant's moral philosophical teachings can be built into an economic model. However, there are two practical problems. Firstly, we are not wholly rational beings, so we are liable to succumb to our non-rational impulses. Secondly, even when we exercise our reason fully, we often cannot know which action is the best. Therefore any such model could be built on a robust statement of principles or constitution – for example, the value set identified in this manuscript. Such a model should be able to be applied in any situation irrespective of its complicated or unique nature rather than any inflexible rule that must be carried out to the letter of the law.

An example of inflexible rules is the Sarbanes-Oxley Act in the US, which imposed tougher penalties on directors along with restrictions on auditors providing non-audit services. One might argue that prescriptive legislation will never be fully effective against the continually evolving state of capitalism. Ultimately compliance with ethics and good governance will be driven less by the threat of government intervention and more by the stigma of being branded an unethical enterprise in a game of 'name and

shame' since unethical behaviour would be in direct contravention of the new business culture of ethics ushered in by corporate governance codes

Management, rather than employees, possess more of a freedom to choose due to more discretionary nature of their work. This is why the discrepancy in pay between management and employees has widened over the last two decades – because management used their discretion to make decisions, which were not always ethical, that were ultimately in their own best interest rather than necessarily the interests of their corporations or employees. For example, the share options that management were awarded cost them nothing to acquire yet they undertook high risk strategies to increase the value of these share options to the maximum.

Nevertheless, failure of these strategies again cost management no financial hardship other than their reputations - as seen in the recent 'reward for failure' culture emerging with the 2009 banking crises - yet ultimately cost some organisations their future. In the late 1990s, for example, this gap between director and employee wealth widened considerably. The September 2002 edition of Business Week survey showed that in 2000 CEOs of quoted American companies made 531 times the amount earned by the average worker. This compared with just 42 times in 1980. There is no doubt that some of this unequal distribution of wealth was engineered through corporate mis-governance. This would tend to offer some support for Kant's argument that wealth can be used for ill purposes and therefore cannot be intrinsically good.

Kantian ethics does offer some support for the existence of the principal-agent conflict of interest where managers attempt to reduce profits (which are legitimately shareholders) by increasing their level of remuneration (and therefore satisfaction). Therefore in any application of Kantian ethics to corporate governance, one could begin from the Kantian belief that 'duty is the necessity to act out of reverence for the law'. Accordingly the ultimate principle of morality must be a moral law conceived so abstractly that it is capable of guiding us to the right action in application to every possible set of circumstances as noted in the Statement of Principles of 5th Amendment to the American Constitution.

Confucian ethics and Quasi-rents

So the only relevant feature of the moral law is its generality, the fact that it can be applied at all times to every moral agent. From this chain of reasoning about our ordinary moral concepts, Kant derived as a preliminary statement of moral obligation the notion that right actions are those that practical reason would will as universal law. Centuries ago, Confucius mused over the golden rule on duty and responsibility that we identify with Kant: 'never impose on others what you would not choose for yourself'. It is a rule that has gained some prominence in today in the wider debate on corporate governance and corporate social responsibility. Modern companies are trying to understand responsibility in a search for an ethical foundation for good governance. In *Law, Economics and Antitrust* (2005) we introduced the concept of a stakeholder firm, an *s-firm*, to the debate. Good governance within an *s-firm* is centred on the golden rule.

Within an *s-firm* responsibilities are allocated between all employees in such a way as to maximise joint effort. The modern competitive firm evolves into an *s-firm* when

workers and management have a greater opportunity to become part of the firm, managing themselves, monitoring quality and productivity. The s-firm teaches people responsibility. The best companies would have governance codes that evolve from the worker's morality in fulfilling their duty and responsibility. When Deng embraced trade and competition in the early 1990s in Shenzhen the seeds of markets and material gain were sown for the emergence of a new China. Chinese companies, collectively, have unparalleled economies of scale in an economy where per-capita GDP is increasing at about 8% per annum for the past 20 years. A central part of the transition, however, from command system to a market-based system has been the re-creation of the competitive firm in China as the basic form of business institution. Nonetheless this may not be enough to propel Chinese companies into global companies.

Within the Chinese business model, however, governance will require a careful balancing act between the management of the competitive firm as it evolves in China and the Western ideal of a competitive firm. In the Western ideal of a competitive firm much of the debate on governance has centred on good practice at Board level. However, the debate has largely overlooked the importance of duty and responsibility amongst employees - management and workers alike. In response to Chinese competition, a different enterprise culture has arrived in the West characterised by firms offering flexible working hours, minimal fringe benefits, retraining opportunities, subsidised child care while encouraging tele-working, outsourcing, sub-contracting and part time working practices. It is an enterprise culture interspersed with contract workers, contingent workers and portfolio workers, an enterprise culture within which it is predicted that the supply of enterprise seems destined to outstrip the demand. It is simply not sustainable.

There is a need for an alternative enterprise culture, a Confucian enterprise culture that is focused on resolving disagreement amongst workers ensuring that any divergence of views between management and workers can be mutually agreed and minimised in order to remain competitive in a world market. There is a need for an ethical approach that stresses the importance of *idiosyncratic* elements of duty and responsibility within the enterprise. It has been ignored in the more Western theory of the firm for too long. It's *raison d'être* can be found in the golden rule as espoused by Confucius and many scholars including Kant.

As noted in Table 1.2, Chinese companies with global ambition should begin to embrace governance at the employee level by adopting a Confucian code of ethics that is not just about right and wrong, but emphasises a contractual sense of duty and responsibility to fellow employees as stakeholders in the firm. To say that China is changing is to state the obvious. Historically, its planning system intrinsically destroyed the economic ideal of a Western-type of competitive firm. Ironically, the ideals of Confucius, if adopted and adapted for the 21st century, may bestow on Chinese companies a governance code that evolves from the worker's morality in fulfilling their duty and responsibility.

Table 1.2: Good Governance

	Duty & Responsibility	Employee Governance
Chinese Global Company = (1 + 2)	YES: FULFILLED 1	YES:ADOPTED 2
Chinese National Company = (3 + 4)	NO: NOT FULFILLED 3	NOT ADOPTED 4

The 21st century is about China. Understanding Chinese companies, however, as global players in the 21st century will have less to do with economics and more to do with ethics. Good governance is essential if Chinese companies are to emerge as global players bestowing peace and prosperity to the world. China is and will continue to be a powerful source of the world's future prosperity. As a nation it needs time to adjust. Chinese companies should continue to stress the importance of *idiosyncratic* elements of duty and responsibility within the enterprise if they are to continue to rub the smooth bark of a jade tree.

But do all companies fit the profile of the firm as represented by a 'nexus of contracts' between the stakeholders? This approach has its origins in a celebrated 1937 paper by Coase. In the absence of a firm, each factor of production must contract with every other factor whose co-operation is required. Within the firm each factor negotiates a single contract. In an extreme case, for example, where n individuals must all co-operate closely, many bilateral contracts would be required to bind the parties together.

For five individuals, for example, ten agreements would be necessary. An alternative is to have a value set within the firm. In Coase's view, the firm evolves as a response to economise on transactions costs because bargaining over what has to be done, and on what precise terms, does not take place. The firm is characterised by the conscious organisation or direction of resources over time: within the firm, people do what they are told to do.

Ricketts (1998) provides a review of the work of Wu (1989) who argues that the corporation represents the final stage of a long historical process during which land, labour and capital markets have become ever more developed and specialised. Whereas an entrepreneur would once have supplied his own labour and capital, the refinement of these markets now permits the exercise of 'pure entrepreneurship'. Capitalists are gradually becoming mere lenders of funds and risk-bearers, leaving the control of the production process in the hands of the pure entrepreneurs. Firms are coalitions of entrepreneurial rents) generated by their activities, and bargain over how these rents should be distributed between them. Corporate governance for Wu is

therefore entirely concerned with bargaining over entrepreneurial rents generated by the coalition of entrepreneurs that comprises the firm.

Although the receipt of quasi-rents implies a type of dependency, the competition for shareholders' finance and the pursuit of good reputations by entrepreneurs will ensure that the potential for opportunism is not abused and shareholders can expect to receive the market rate for their services. The team dependency of the classical capitalist is thus transformed into a form of market dependency, a theme explored by the s-firm concept in Law, Economics and Antitrust. As Casson (1991) emphasised, business culture is an important determinant of economic performance and an ethical business culture cannot be created quickly. The approach to corporate governance explored by Wu is not therefore a straightforward rational choice approach. It is a system that is compatible with the rational behaviour of individuals, but it is the end result of a long process of historical evolution.

Critics of the neoclassical paradigm argue that the approach is flawed at a very fundamental level. It provides a theory of contracts but not of organisation. In neoclassical theory, people choose optimal contractual arrangements in stochastic environments where information can be generated by monitoring or search using a known technology. Differing circumstances will produce differing optimal solutions for the contractors. The contracts chosen will not be 'first best'. Indeed, from the point of view of traditional theory there may be much inefficiency associated with the contractual outcome. Incentive schemes for workers, for example, as contractual devices, produce dependency on the firm and implied that payment was in part a rent on resources sunk in the relationship – an enforcement rent. However, although such contracts may be far from first best, it is not clear that they must necessarily be incomplete. For the critics, however, organisations are inextricably linked to contractual incompleteness. A good example of this characterisation is the agency model.

Under an agency contract one party (the agent) agrees to act in the interest of another party (the principal). A good example is when you employ a gardener or management employ workers. Note that two important features are required to hold if the agency relations is to be interesting in terms of determining duties; first of all there must be a *conflict of interest*. The gardener, by assumption, may be interested in giving you the minimum amount of attention he could get away with. You, of course, may be in eliciting from the gardener the greatest work effort that was possible. And secondly, there must be an *asymmetry in the information* available to principal and agent. You simply may not know what actions are possible and how they may affect you. The gardener may not be in a position even to tell what action, if any, you, his agent has taken.

The existence of asymmetric information would not matter if there was trust and honesty amongst the parties - no conflict of interest. The agent would always choose an action, which accorded with the preferences of the principal. Similarly, if the information available to both principal and agent were the same, the conflict of interest would not matter since the principal would immediately detect any opportunistic behaviour on the part of the agent. Where both asymmetric information and conflict of interest are present, the problem facing the principal will be to present the agent with a system of remuneration sometimes called a fee structure or incentive

structure, which will produce the greatest payoff to himself. In case of the relationship between employer and employee, there are obvious parallels with the principal agent problem.

The relationship of principal and agent may be compatible with the existence of a firm. The contracts discussed in the Neo-classical models tend to be from the world of 'classical contracting' in which clear agreements could be formulated and, if necessary, enforced by an outside or 'third party' agency, possibly, the state. There may be different enforcement mechanisms within a firm, Ricketts (1994).. However, there are likely to be many circumstances in which such enforcement mechanisms will be ineffective, and the contractors themselves have to develop a system of rules and standards - 'governance'. It establishes a framework in which the benefits from a continuing association can be achieved. Because potential conflicts will inevitably arise over time, procedures are devised to minimise their destructive consequences and induce as much co-operative behaviour as possible.

The crucial element for Williamson's model of governance is vulnerability to opportunism deriving from the existence of transaction-specific assets. You rely on the skills of the gardener and he knows it. Likewise the role of management in developing an optimal structure within the firm is central to Chandler's analysis - as he puts it 'the visible hand of management has replaced the Adam Smith's invisible hand of market forces'. Management is intricately linked to the optimal firm structure. Drawing on an extensive literature, one can deduce that the primary purpose of economic organisation is to provide a vehicle for entrepreneurship. We add to that by requiring such organisations to provide an ethical system capable of supporting intuitive argument and reasoned responses in determining a value set. The focus is less on the contractual necessity of introducing enforcement rents and more on the creation of entrepreneurial rents and the discharge of firm-specific duties.

In Chandler's analysis structure follows strategy, a transition that was precipitated by external pressures. Particularly important for Chandler was the increasing volume of activity, which arose in response to (say) new and increasingly urban markets. This development in the late nineteenth century coupled with technological change enabled firms and their management to move into high-volume production. In the face of such pressures, enterprises could adopt either *defensive* or *positive* strategies. A positive strategy occurs when a firm and its management actively look for new markets and new products to serve those markets. It is organised around product diversification. A defensive strategy is where a firm and its management act to protect its current market position. A common way to achieve this strategy was to form a vertically integrated company either by means of a merger or engage in vertical agreements with suppliers and customers. Both strategies lead to bigger organisations and the attendant problems of x-inefficiency, bounded rationality and the Penrose effect.

The Value Set & Trust

The value set is the set of contracts taken as a whole. However, it emphasises the responsibility and duty rather than the classical aspects of these contracts. In the context of managerial incentive contracts, for example, the main drivers are the percentage of the shares held by an individual (which might be small) and the impact on the individual's well-being of the value of those shares (which might be very

great). Quite possibly, it would be the impact on the individual's well-being of the value of those shares (which might be very great) that would determine the influence of shareholding on a person's effort. Although effort would always be less than would occur in an ideal world of trust and honesty and zero transactions costs, and certainly less than would occur if a single person held the entire equity, the latter would stimulate too great a level of effort while the former is not relevant to institutional choice which must be concerned with potentially realisable alternative arrangements rather than imaginary ideal states.. The value set as a strategy could be a latent source of competitive advantage.

At the heart of our approach to business ethics is the assumption that the firm has, at any given time, a set of firm-specific duties, decision rules and routines. These routines might be regarded as the generic material of the organisation. Routines and decision rules that produce profits, lead the firms which have adopted them, to grow relative to other firms experiencing lower profits or falling market shares. An ethical value set will help to reduce transaction and agency and allow management to take executive responsibility in the search for the competitive advantages created by the co-ordinated discharge of duties within the firm. This could manifest itself through improved routines in production, distribution, marketing and improvements in existing product design and processes. Both the activities and the resources of the firm become embodied in its value set. Relationships with suppliers, customers and workforce may also be affected by perceptions of reliability, reputation, trust, expertise and so forth, which have evolved over a long period of time.

The importance of establishing trust between trading partners has to be recognised by all partners. Firms trust their workers and management could respond by instituting hierarchical incentive systems. Trust in suppliers could result in a less vertically integrated industrial structure. Firms with a good financial record and close contacts with their financiers would find it cheaper to raise finance for further expansion. In other words, a reputable history is a valuable asset that cannot be wished into existence. Creating a reputation requires a degree of continuity over time and continual reinforcement in repeated deals.

Modern treatments of the process of innovation emphasise the importance of collaboration between firms. Firms, by their collaborative associations become part of an evolutionary process of 'group selection'. Survival depends not merely upon the existing capabilities of a firm and selection in the market (the first level of competition), but also on the ability to generate new capabilities (the second level of competition). This type of competition can involve the formation of collaborative associations with other firms in a group. Collaborative R&D is a prime example of group selection at the second level of competition. Market transactions rely on the existence of codes of conduct, which limit uncooperative behaviour. It is possible to construct repeated games in which self-interested responses on the part of individuals produce co-operative outcomes.

Summum Bonum

Philosophers consider the major problem in philosophy to be the discovery of the *summum bonum*, life's greatest good. Sahakina (1966, p31) captured the problem as follows: '[sic] the right act can readily be known once the greatest good has been determined, for it becomes simply that act which enhances the realization of the greatest good, and the immoral act is that mode of behaviour which is a deterrent to its realization'. In Chapter 3 we look at a classic Prisoners' dilemma on trusting your opponent to cooperate in order for both players to obtain a maximum payoff. These games rely on a high probability of repetition of a transaction or on the ability to recognise characteristics likely to correlate with the trustworthiness of an agent. Chapter 2 explores the phenomenon of secrets and later in the manuscript we shall review the hawk-dove game to indicate how, over time, the equilibrium proportion of those playing an aggressive non-cooperative strategy might be determined. Where a hawk can be identified in advance, the payoff to the hawk strategy will be reduced. Hawk strategies will be met with hawk strategies, and the resulting conflict will be disadvantageous. Aggressive non-cooperation is only a good survival strategy in a world in which most other individuals are co-operative and cannot modify their strategy according to the characteristics of their opponents.

For the moment in search of your *summum bonum*, consider this hypothetical scenario: faced with a criminal who is about to commit a crime for which you will be the victim, would you bargain with the criminal to avoid the crime being committed in the first instance? Ask yourself the following question: are you a criminal? Look around your environment, an environment circumscribed by alpha-numerics: the pin number for your ATM card, the security code for your house alarm, and the swipe card to enter your office or designated car park. You probably cannot park outside your front door without a permit, your trash or rubbish will remain uncollected unless you pay a requisite fee, and in general your (actual) real opportunity cost of doing x (conforming), $C(x)$, is internalized as the costs of your safe environment - an assurance payment to protect your property right. Your $C(x)$ is the mirror-image of the expected cost of the criminal, $C^e(y)$, imprisoned for doing y (not conforming), equally taking assurance with the prison wardens to protect his life and possessions.

The difference is that you do not perceive yourself as a criminal but rather you react in a criminalized state of nature, while the real criminal, acting in a criminalized state of nature, is imprisoned and believes himself to be safe. You as the rational person internalize the opportunity costs of your environment as actual costs, as assurance against the real criminal, your burglar, your care thief, the uninsured tortfeasor who crashes his car into your car or the shirking worker in your plant. In *Law, Economics and Antitrust* the argument was made that the values (chosen normative criteria) should be explicitly identified and stated so that their limited and relative validity is quite clear.

Rationality is at the core of the law and economics paradigm. As a rational person with a Kantian sense of ethics you implicitly and inadvertently choose to balance the actual cost of doing x against the expected cost of doing y . You are Type I individual. However, traditional cost-benefit analysis would have you balance the benefit of

doing x against the cost of doing x . You are a Type II individual. Law and economics with its assessment of the whole compares the expected cost of doing x , $C^e(x)$, with the expected benefits of not doing x . The expected benefits of not doing x are inversely related to probability of detection. You are a Type III individual, and provided sufficient numbers of individuals are of Type I and II, there will always be the free rider or the marginal thief, the agent whose decision to do ($\sim x$) is a function of other individuals' beliefs that to do ($\sim x$) is so immoral, unethical, false or untrue that no one will do or commit ($\sim x$), so the marginal thief or the recidivist criminal will continue to do ($\sim x$.)

Type I: Do x , iff $C(x) < C^e(y)$: Otherwise Do y .
Type II: Do x , iff $C(x) < B(x)$: Always Do x .
Type III: Do $\sim x$, iff $C^e(x) < B^e(\sim x)$: Otherwise Do x .

Rousseau had argued in his *Discourse* on the origin and basis of inequality that if a group of individuals set out to take a deer they are fully aware that they would all have to remain fruitfully at their posts in order to succeed, but if a hare happens to pass near one of them, there can be no doubt that once he had caught the prey, he cared very little whether or not he had made his companions miss theirs. Each individual has a capacity for rational calculation and if cooperation is a gain for an individual then that individual will cooperate. If there is a dispute the parties can rely on negotiation in the hope of narrowing the dispute and limiting damages.

The financial economics literature has demonstrated that there is a market for traded uncertainty amongst households. And not unlike the financial model of Black and Scholes in the 1970s, law and economics is searching for a grand theorem of negotiation, obligation and commitment. Type I individuals taking precaution in a criminalized environment is something of a guess. The challenge for law and economics is putting a price on a contingent liability – something that would be exercised only if it was in the buyer's interest to do so. So if you live in anarchy there is a price because there is a liability since in the absence of property rights you have no possessions.

In an ordered society with law and government, there is a probability of liability and loss, and in conjunction with the classical moral hazard problems, no one price on a contingent liability will prevail, so some of us take precautions and incur insurance costs as Types I and II, while others do not and continue as Type III. The situation arises as a classical Prisoner's Dilemma where the individual benefits more by playing a game defectively while the others play cooperatively, but in the long run all players will play defectively, cooperative behaviour will erode and all players will be worse off. Therefore the punishment of Type III dependent criminal persons by imprisonment or fines should translate into controlling their dominant positions, and thus ensuring that the cost of their behaviour is increasingly less of a burden on Type I and II individuals. We address these issues in *Political Economy of Law* by echoing a call for a *tao* of ethics.

Chapter 2

Honesty and Truth

The problems of language here are really serious
We wish to speak in some way about the structure of the atoms
But we cannot speak about atoms in ordinary language.
W. Heisenberg

We could begin our discussion directly with a realist rationale for honesty. But you, the reader, may not believe that the named author has spent three weeks writing and researching this paper. If you are a philosophy student, you may think that you should read this paper in preparation for a final degree examination, but you may choose to ignore that knowledge when you opt to attend a party, instead. Your friends observe you at the party and what they observe is a student who signals not to care about something that may actually mean a great deal to him. Are you dishonest? Did the author spend three weeks composing this paper? Is the author dishonest? Philosophy cannot predict whether you will be found out. Ultimately, as argued by Smith (2006, p81) dishonesty can sometimes fool other people, but it cannot fool reality'.

Answers can only be found in arguing that honesty makes sense because we cannot fake reality. Reality may not change but individual's perception of reality does change through the action of others. Rather, we observe the actions of others, and individuals can only directly observe the actions of a small percentage of those they may have to rely upon to tell the truth; for the rest, they must rely on information from other sources. For example, Schwab and Ostrom (2008, pp212-214) focus on the reports others provide about an individual's reputation. But there is also an individual's type: *viz* honest type (H), liar type (L) and truth telling type (T). A type allows one individual to badge another as a liar or not. For it is in the badging of others that one can more easily approximate a world of perfect information. Therefore, badging is dependent on the fact that there is uncertainty in relation to the circularity of beliefs about individual A's type.

Typically an individual deceives another because he thinks that he could not achieve an end if he engaged in truth telling behaviour; the other person would not, if he knew the truth, act as the liar wishes, Smith (2006). Across the philosophy literature, there are social arguments for honesty ranging from Warnock (1974, p84) contending that 'dishonesty damages social intercourse by unravelling the fragile fabric of trust' to a metaphysical view ala Ayn Rand contending that 'it is not, fundamentally, relations with other that necessitates honesty, it is reality', Smith (2006, p87). The latter provides a good overview on the different arguments, writing that 'honesty is the only practical means of survival *qua* human (p87).' Whatever scholarly disputes there may be about dishonesty in the economic literature, there is a noticeable paradigm shift in the neuro-economic methodology away from the traditional Neo-classical preference for dishonesty, Demichelis and Weibull (2008).

Rational man is dedicated to telling the truth when he is in a position to know, and act. Telling the truth (TTT, henceforth) has become a behavioural norm in society. Individual A, who commits to a recognised pattern of truth-telling behaviour, is badged Mr T. It is because, as individuals, we are concerned not with mere assertion regardless of truth, nor even with mere true belief not known to be true, but with knowledge, that we are and have to be concerned with rational justification, Flew (1975, pp118). The more Mr B observes Mr A engaging in TTT behaviour the more Mr B will trust in Mr A.

Signals & Trust

You the reader are Mr T. Although Mr H, an honest individual may always tell the truth he may also keep a secret. Of course Mr H may also tell a 'white lie' if that is the honest thing to do. We explore this phenomenon of 'white lies and porky pies' in the drafting of *Political Economy of Law*. So would you trust Mr H to engage in TTT behaviour? It is simply because many are inclined to observe less signals about Mr H - believing with certainty that Mr H engages in TTT behaviour - that Mr L will be tempted to snatch the truth. Individuals who have a proclivity to lie or a preference against dishonesty, and thus refrain from either telling the truth or retain secrets can be badged, Mr L. But Mr L can also retain a secret. For to maintain that what we believe we can understand about Mr H we are oafishly inclined to observe less and once it becomes a self-fulfilling prophecy that we believe we can understand, Mr L, an individual with a preference for dishonesty, distracts attention from questions about the truth.

Signals convey information about the truth. A signal is the first derivative of type with respect to time allowing the observer of the signal, Mr T in this case, to form a judgement on whether the information conveyed by Mr H is true or false. For example, if Mr H conveyed a signal in time period t and it was observed at t by Mr T to be the truth, based on information at t then Mr T could believe with certainty that Mr H is of honest type. Mr T could trust Mr H - trust in this particular instance has become a 'cognitive assessment tool' ala O'Hara (2008, pp176-177).

Arguably, type can be portrayed by a signal but not every signal observed portrays the truth. An individual can simultaneously tell the truth and keep a secret. Mr T, a trusted friend, would be in a preferred position if Mr T could read the signals from Mr H and detect a secret kept by Mr H. When the secret is revealed to Mr T by whomever, Mr H is no longer trusted to tell the truth and may be badged as a liar. Type as a value badge can therefore be a function of signals.

Informational conflicts within the individual have recently been the object of neuro-economic research, Bodner and Prelec (2003). Earlier, Loewenstein (1996) had argued that emotions and drives cause individuals to behave contrary to their long-term interest. The neuro-economic methodology advances the idea of 'a brain architecture composed of multiple, interacting systems' Brocas and Carrillo (2008, pp1334). In this paper we argue that an individual's type is pivotal in offering a rational justification to others for believing the individual.

Topology of Truth

In defining a typology for secrets and lies, let us consider two sets, *viz* set S: signals and set T: type. Lies, k , are a subset of the signals set, S. If we can find for each element s of S an element t of T that has element s by its image then such t 's will form a subset of T. This subset is the set, secrets. The set secrets, s , is a subset of the set type, T. Consequently type is the second derivative of a secret and a secret is the third derivative of a lie.

Lemma: By adapting the Schroeder-Bernstein theorem, McNutt (1992) had defined a subset k of S such that g^{-1} is defined on $f(k)$ as a subset of T and showed that if S is the disjoint union of k and $f(T - g(k))$ there exists a 1:1 function h from T onto S by setting h equal to g^{-1} on $g(k)$ and h equal to f on $\{T - g(k)\}$. In other words, the truth is embedded in the mapping of secrets *onto* lies rather than in the mapping of lies *into* secrets.

But could it be argued that signals are a function of type? Trivially, for Mr H, signals are a function of type H and type H is a function of signals for honest individuals with no secrets. Honest types may tell the truth but may also keep secrets because secrets are a subset of type. If Mr L has been observed to always tell a lie, then can Mr H and Mr T both assume that Mr L has secrets? If the answer is in the affirmative then Mr L's signals are a function of his type. It may be that it is more difficult for Mr L to tell the truth than it is for both Mr H and Mr T because Mr L has a secret. Mr H, however, whom Mr T had trusted to tell the truth, will find it easier to tell the truth and more difficult to tell a lie because Mr H has a secret.

A paradox arises because either there is an innate desire to tell the truth or TTT is pivotal in influencing the actions of others. In other words, if signals always reveal type – because type is a function of signals – then your type T can be explained by an innate desire to tell the truth. Telling the truth is genetic rather than individual, Dawkins (1976). Truth-telling we equate with an honest reporting of one's signal. However, if TTT influences the actions of others, and all are aware of this fact, then might it be the case that those telling the truth do so strategically to reflect the fact that their truth-telling will influence the action of others. So Mr T telling the truth matters only in those cases where truth-telling is pivotal, Morgan and Stocken (2008). In all other cases, type T is irrelevant.

The 'Truth Will Never Out' Dilemma

The essence of secrets as a subset of type, confirms the traditional economic reasoning that individuals have no preference for honesty or against lying *per se*. Demichelis and Weibull (2008, pp1293) make the comment that 'the standard assumption is that economic agents opportunistically misrepresent their private information whenever they believe it is to their advantage to do so'. Aumann (1990) had earlier pointed out that individuals may agree to play a payoff dominant equilibrium even if each individual secretly plans to deviate.

In the absence of any agreement or chat each individual chooses now that they would have chosen without an agreement: 'since he can reason in the same way as me,

neither one of us gets any information from the agreement; it is as if there were no agreement (Aumann 1990, pp202-203). Mr L's preference for lying may be explained by the existence of a secret as a subset of his type. Therefore in trying to understand secrets within a topology of truth we should begin from the premise that secrets are the image function of the set lies, k , which is a subset of signals. In other words, the truth is embedded in the mapping of secrets *onto* lies rather than in the mapping of lies *into* secrets.. This leads to an Aumann-like outcome: in the absence of type each individual believes now what they would have believed without type.

The truth is embedded in a topological neighbourhood of nothing. In other words, Mr L has a reputation as a liar so his type L signals a lie. The truth-telling of Mr H is proportional to the scale of his honesty and Mr T telling the truth matters only in those cases where his truth-telling is pivotal. TTT behaviour can be signalled by a lie or embedded in a secret. Paradoxically, while we are more familiar with TTT behaviour embedded in a secret - the 'white lie' – we may find it puzzling that truth telling could be signalled by a lie. This is what we label the 'truth will never out' dilemma. .

Consider the following: we are looking for a volunteer to refrain from telling the truth. Mr L and Mr T realise that if both volunteer the worst possible outcome will obtain. So who will volunteer to tell the truth? Both players have an incentive to volunteer given that the other player does not and it is because of this incentive it can be argued that the pre-condition that the other player does not volunteer may not hold and hence to volunteer becomes the optimal strategy. The dilemma here is that it cannot be optimal for both Mr L and Mr T simultaneously, that is, as players in a game they do not have dominant strategies.

Table 2.1: Truth-Will-Never-Out

	Truth	Lie
Truth	(2,2)	(2,3)
Lie	(3,2)	(1,1)

Unlike in a classic Prisoners' dilemma game where there can be a unique Nash equilibrium, in Table 1 the solution can be characterized by either one of two Nash equilibria: (2,3) or (3,2). In this classic Volunteers' dilemma there is no strategy available by which one player can punish the other player's deviation from a quasi co-operative path.

First Hurdle of Secrets

Recall that if secrets are a subset of type, then Mr T may have a secret, and thus he may tell a 'white lie'. If Mr L with no reputation in truth-telling could reveal a secret about Mr T, then Mr T would prefer Mr L to keep to type and lie and Mr T will react by refraining from telling the truth to allow a secret 'no-truth' equilibrium obtain at (2,2). At the payoff (2,2) Mr T receives less than at (1,4) but the secret has remained intact and the 4 payoff is only obtainable with Mr T lying with Mr L a liar, and thus signalling nothing about the truth.

In the no-truth equilibrium there is an elusive payoff of 4 that Mr T does not wish to obtain without revealing a secret, thus creating a unique Nash equilibrium at (2,2), the best that Mr L can do given the reaction of Mr T to refrain from telling the truth by telling a ‘white lie’ and the best Mr T can do given the reaction of Mr L in keeping a secret. Both players realise that there is a *first hurdle of secrets*, that is, to reach a stable equilibrium with Mr T’s secret intact the payoffs have less to do about telling the truth and more to do about maximising a payoff with secrets.

Table 2.2: Secret ‘No-Truth’ Equilibrium

	Secret	Lie
Secret	(2,2)	(2,1)
Lie	(1,2)	(1,4)

Although type can be innate - right handed or preferring apples to pears - type can be observed by signals as in writing with your right hand or eating apples when offered a choice of apples and pears. The observed signals do reveal a type *as observed* by others but not necessarily an innate type. There is no absolute guarantee that the observed signals portray a type. Mr H does keep secrets while Mr L might tell the truth if truth telling was pivotal. Spies, for example, are often caught when they fail at the first hurdle of secrets – by reverting to type and thus telling the truth.

If Mr H’s type has a probability of 1 (implies no secrets, no lies) then a probability less than 1 could provide a metric scale for types who refrain from telling the truth with secrets and lies. Are there increasing returns to scale in type of player? If Mr H is always observed to be honest then the truth-telling of Mr H is proportional to the scale of his honesty. If Mr L refrains from telling the truth in cases where those telling the truth do so strategically to reflect the fact that their truth-telling will influence the action of others his lie will be proportional to the number of times that Mr T telling the truth is pivotal.

Moon-shot v Trust

Aside from personal integrity, what is the probability that an individual keeps to type? No secrets, no lies could be assigned a probability of 1. However we observe only signals about Mr H’s type, his honesty and his integrity as an individual implying neither secrets nor lies. Do you trust Mr H as your partner? Should you trust Mr H as your competitor? Trust ultimately depends on one’s belief structure about other people. Generally if Mr A trusts Mr B to do x, then Mr B, knowing that Mr A trusts him to do x, has a choice to make: does he do x or not. Of interest in the business world is the consequence of x in terms of provoking a reaction. One scenario is the belief that x will be done. This is a moon-shot.

Neither Mr A nor Mr B signal the moon-shot; neither know that about each other, and so they believe the moon-shot as a likely action, and thus leading to a reaction. For example in Table 2, a moon-shot that Mr L would reveal a secret about Mr T incites Mr T to tell a 'white lie' and refrain from telling the truth. Sometimes an individual knows without inference, as when we know that it hurts. However, where the need for rational appraisal has to enter is in the determination that we are indeed in a position to know, and act. This need becomes urgent whenever there are grounds for fearing that we may in fact be mistaken, Flew (1975, pp115). To maintain any belief, one must have trust in the observed signal rather than acknowledge the belief to be false. For in the extent to which trust is credible in terms of doing x, where x has significant negative consequences for both A and B, both individuals must trust each other absolutely.

Mr H, an honest individual may always tell the truth but he may also keep a secret. So would you trust Mr H to engage in TTT behaviour? In a world of imperfect information, individuals circle the circumference of concentric cycles of knowledge in the search for the core of content – the truth - that they believe what they understand simply because the boundary of what they need to understand is endless and the observations are few. As individuals we often find ourselves detached from the observations, oblivious to the truth that we simply trust Mr H in order to understand. Mr L can then exploit this trust.

Reason and Knowledge

Albeit, the approach adopted in this Chapter is that a rational person may reach a certain conclusion about Mr T not by the use of reason but by proof. Observed signals reveal a type T, an individual Mr T exists, and if Mr T could be thought of as telling the truth then Mr T has to exist. Mr L and Mr H have to exist. If lies and secrets camouflage the observed signals so that type is more difficult to ascertain then one must ask: what is the truth? Why do some people tell a lie? Why do others keep secrets? Truth demands taking type seriously. This requires of an individual to seek knowledge in an imperfect world in order to understand the way things are in time period t, and will be in time period t+1.

In resolving talks or disputes, one player can exploit the belief system of another. Mr T believes the moon-shot and that is why it is credible. If Mr T were an honest type then he would not be surprised. When secrets are revealed they represent a surprise only in so far as the secret has credibility as evidence of one refraining from the truth. The essence ala Brody (1980) of a secret is not only that without which a secret would not exist, it is also that which sorts a secret from lies, of which a secret can be grouped with lies in a topology on truth.

Therefore lies and secrets are complex so one has to rely on the signals in an imperfect world where reliance on type and 'keeping to type' or reputation offers a workable definition of truth. In an imperfect world of information, knowledge is relative in the sense that it is obtained sequentially through signalling and experience. Truth is a reflection of a signal, the first derivative of type, the second derivative of a secret and the third derivative of a lie with respect to time. Truth is contained in the neighbourhood of nothing, a neighbourhood of secrets and lies, signals and type. The truth will never out; Mr T and Mr H will always tell 'white lies' and Mr L will only

tell the truth if it is pivotal. Secrets have been and always will be with us - from the *oratio secreta* recited by clerics in daily rituals to secret talks to resolve a dispute to secret handshakes; secrets will remain intact. Type T is irrelevant.

The essence of a secret, call it s , is not only that without which s would not exist, it is also that which sorts s from other things, call them lies, of which s can be grouped with them in a topology on truth. So the task in hand is to explain truth telling behaviour. In trying to understand secrets and lies we define a topology such that for every secret, s , there is at least one lie, k , such that $f(k) = s$. In other words, the truth is embedded in a surjective mapping of secrets *onto* lies. A set, call it lies, k , is a subset of a set, signals S , and a set, call it secrets, s , is a subset of a set type, T . Individuals are badged into types: Mr H, the honest type, Mr L the liar type and Mr T the truth telling type. Secrets and lies are signalled by an individual's type. A signal facilitates the observer of the signal in forming a judgement on whether the information conveyed is true or false. If Mr L with no reputation in truth-telling could reveal a secret about Mr T, then Mr T would prefer Mr L to keep to type and lie and Mr T will react by refraining from telling the truth to allow a secret 'no-truth' equilibrium obtain. Truth is therefore embedded in a topological neighbourhood of secrets and lies, signals and type.

In terms of the Apple thief in *Political Economy of Law* and the issue of honesty addressed above we can look at evolving precedent in the area of trade-marks. The ECJ ruled in 2005 that a third party should be allowed to use another party's trade-mark if this was necessary to demonstrate the purpose of their products. Gillette through its Finnish subsidiary, holds the exclusive right to use its 'Gillette' and 'Sensor' trademarks in Finland, where it sells both razors and separate blades. A Finnish company, the defendant, LA Laboratories, also sells its own razors as well as separate blades which are marketed under its own trade-mark 'Parson Flexor'. What it wanted to do until Gillette objected was attach a sticker saying that 'All Parson Flexor and Gillette Sensor handles are compatible with this blade'.

The Court was careful to stress that a replacement-part manufacturer may only use someone's trade-mark honestly. This condition would not be fulfilled, it said, if the third party tried to suggest that there was some commercial agreement between itself and the trade-mark owner or if the third party presented its product as an imitation or replica of the trade-mark product. The task of deciding the honesty hurdles is now with national courts. But it does provide a new approach as this precedent has the potential to spill-over into replacement parts markets from cars to computers. But the law continues to struggle with the wider domain of the trade-mark. In the decisions *Picasso* and *Opel*, for example, the struggle is about the meaning of trade-mark use by a third party. In other words, trade-mark use can damage the property right invested in the trade-mark, if the use complained about is a trade-mark use. But in the *Arsenal* case and subsequently in *Gillette* the third-party or reseller had informed the public by affixing a stamp on the product concerned that had the effect of informing the public that the products did not carry an indication of origin. The net legal point was whether any use of the mark that does not indicate a source of origin could not amount to an infringement of that trade mark. Is it the case that where the public does not interpret the used sign as a designation of origin there can be no infringement? Should a third party be prohibited from trade-mark use? Yes, if the use indicates a source of origin; no, otherwise.

Shemtov (p561 2007) writes of the struggle that has led to an irreconcilable difference between the English courts: 'In the House of Lords' view, the ECJ decision in *Arsenal* supported the view that the exclusive rights granted to the proprietor of a registered trade-mark are limited to use of the mark likely to be taken as an indication of origin while, according the Court of Appeal, whether trade mark use had taken place was an irrelevant consideration for establishing infringement'. Subsequently a decision of the ECJ in *Opel* seems to clarify that only use which is perceived by the public as a designation of origin is use within the meaning of Article 5(1) (a). Honesty in terms of the public's honest perception in purchasing a product should be a critical factor as a discerning public intent on purchasing a trade mark product will buy from a registered reseller. Others may not; but they may do so on their own volition...they carry an opportunity cost of dishonesty.

DRAFT

Chapter 3

Cooperation and Competition

The relationship of form and emptiness
cannot be conceived as a state of mutually exclusive opposites
But only as two aspects of the same reality which
co-exist and are in continual cooperation
Lama Govinda

In this Chapter we hope to develop a systems approach to competition and cooperation based on a presumption that markets evolve over time. Competition is a process. Scramble, contest and combat competition are introduced as new parameters of competition that recognise a rule of nature - an old idea called *Cope's rule* - that states that small firms can evolve into large ones but not *vice versa*. Size brings security from predation, and also brings success in competition for market share. Companies need time to respond to competitive pressures and changing market conditions over time are an integral part of how best to respond. Market conditions are changed by globalisation, the speed of technology, its rate of adoption and progress, and by competition in innovation (R&D efforts).

The approach adopted in McNutt (2005) *Law, Economics and Antitrust* attempted to juxtaposition two philosophical strands of thought: (i) the Walrasian theory of economics - that influenced modern microeconomics, the foundation of modern economic analysis in antitrust today, and (ii) Boolean logic - that has its genesis in the history of mathematics but has been rehabilitated by the proponents of the behavioural approach to game theory, with a particular application again to modern antitrust and competition policy. Our objective in this Chapter is to widen the analysis to allow some consideration for an ethical framework that could be adopted and adapted by companies shy on compliance, and thus dishonest.

Workers and management are the classic employees. They have a greater opportunity today to become *stakeholders* in the firm: to become part of the firm, managing themselves, monitoring quality and productivity. The firm evolves as a stakeholder firm, an *s-firm* McNutt and Batho (2004). This is in contrast to (but not supplanting) the profit-orientated Neoclassical model, Arrow (1994, p7), wherein "workers are *not part* of the firm. [T]hey are inputs purchased on the market, like raw materials or capital goods. Yet they (or some of them) carry the information base [.....] *they are neither owners nor slaves*. There is therefore *a dilemma in defining the firm as a locus of productive knowledge [our italics]*".

Economic analysis of ownership, for example, concentrates on "the possession of residual decision rights and the allocation of residual returns", Milgrom & Roberts (1992, p289). However, the concept of firm ownership should be broadened in order to re-examine employee-ownership, vitiating the more traditional approach to worker-ownership *vis-à-vis* cooperatives. Since there is no concept of absolute ownership in law, ownership is characterised by a set of rights, for example, (property) rights in the use of resources by the firm and by different stakeholders in the firm. Ownership can

then be broadened by anchoring ownership to an intra-firm assignment of property rights (analogous to the possession of residual rights) based on a sound ethical foundation. It is not dissimilar to membership of a 'club' in the club theory approach to collective action, McNutt (2000). Consequently, the employees do not *acquire* governance outright, rather property rights short of ownership *accrue* to those employees, who as stakeholders adopt a code of ethics. This is the quintessence of good governance amongst employees.

Value Set Model of the Firm

The Neoclassical model of the firm describes its objectives as profit maximising under the constraint of a production function. In fact, it considers the entrepreneur as indistinct from the firm itself. In a world where management and ownership are separated and often mutually exclusive, management is best defined as an employee. Although separated by financial criteria – exception arises when management are offered bonus shares in the company – management and ownership are more integrated within the stakeholder firm, wherein the objectives are maximised under the constraint of a value set.

Each competing firm in a market has its specific value set. And the market, often initiated by governments and reinforced by the legislature, can dictate a market value set, for example, minimum pollution standards, minimum wage payments or the length of the working week (35 hours). The stakeholder firm – *the s-firm* - does not necessarily lag the market in creating a value set; on the contrary, the s-firm would take the lead role in a market by creating a value set. This divergence between the firm and the market, manifested in a lead-lag relationship, may create an agency cost for the stakeholder firm and there is the risk that such agency costs could operate as a constraint on the profit function.

In a value set model of the firm, it is useful to think of management as a heterogeneous group of people with different if not divergent or goal incongruent objectives. Likewise, homogeneity cannot be taken for granted amongst all employees. In the classical model, satisfaction is measured in terms of utility maximisation. In the stakeholder firm, any divergence of views between management and workers has to be minimised. This can be achieved through an adaptation of Kantian ethics for the stakeholder firm with all employees displaying a conscious obedience to (ethical) rules.

Fallacy of Composition

In trying to reconcile Arrow's dilemma in defining the firm, the worker-stakeholders should be redefined as having (property) rights short of ownership, in the firm. The entrepreneurial skills of management and the workers within the firm are *co-special assets*; in other words, the skills, reminiscent of Becker's firm-specific human capital, complement the asset value of the s-firm. And herein lies a moral dilemma for management in the deontological sense - management have a duty to workers. Kant believed that the sole feature that gives an action moral worth is not the outcome that is achieved by the action, but the motive that is behind the action. Therefore, in Kant's view, moral actions are actions where reason leads, rather than follows, and actions where we must take other beings that act according to their own conception of the

law, into account. Thus, the categorical imperative for management is to ensure that property rights are well-defined within the firm. In other words, property rights are well-defined when they become a universal law within the firm – it is less difficult to achieve a common denominator in a global village wherein the firm is more than likely to be a subsidiary of a larger trans-national corporation.

The p-firm is the traditional Neo-classical profit maximising firm. The p-firm is a *Gestalt*, greater than the sum of its parts, an organic whole which does not have a 1:1 relationship to its parts. The company, the management, the workers, the shareholders, the consumers are all stakeholders in the s-firm. The s-firm too is an organic whole, albeit, any reasoning that holds true of an s-firm necessarily is true for each component part considered separately, at least that component part not fulfilling its duty. What holds true for the s-firm in terms of its market price holds true for that component part not fulfilling its duty. If the market price is a monopoly price and the monopoly price is deemed to be 'bad' then negative opprobrium falls on that stakeholder not fulfilling its duty.

The initial focus is on price since it is the key determinant of exchange and facilitates that classic dichotomy between 'good' competition and 'bad' monopoly practices. Product markets are defined in terms of existing products and their substitutes. Systems, however, are defined in terms of intellectual property rights and in terms of new products and processes. Systems are also defined in terms of a *Bose-Einstein* price, that is, a price that is so low that it continues to fall into its lowest level: the zero price equilibrium. Hence, changing market conditions are better understood as systems: the fact finder can continue to assess the competitive pressures by analysing actual and potential competition in existing products by focusing on price and quantities while assessing scramble, contest and combat competition by focusing on technology and innovation. In many industries it is the potential and emerging competition that is often most threatening to incumbents.

Walrasian theory

The approach adopted by the Walrasian theory of economics in viewing the real world is based on two important characteristics *viz* (i) many independent activities are occurring at the same time; and (ii) decisions, distributions and prices continually vary. The Walrasian approach can be expressed as follows: 'not only are individual events simultaneous and interrelated, but the same can be said of events moving across time'. Abusing both language and history these characteristics coupled with the elegance and rigour of an economics and logic are the basis of what McNutt called in his book *the neo-Walrasian* approach to an economic analysis of law. It is an analysis of implications but with a demonstration of truths, in the empirical sense of that word. The goal is not just to discover what follows from certain assumptions and postulates.

We struggled in *Law, Economics and Antitrust* with the neo-institutional economics paradigm, a paradigm that questions the extent to which the legal system can facilitate exchange. The presence of asymmetric information and the existence of incomplete contracts limit the extent to which the legal system can facilitate exchange. Arguably, when this limitation implies efficiency loss, private order institutions will emerge to govern exchange. These institutions 'enforce the agreed-on exchange without relying directly on the legal system'. Instead they rely on various contractual arrangements

‘such as sharecropping, ownership structure, arbitration and termination clauses, deferred compensation plans, and mandatory retirement’ to provide the appropriate incentives for compliance’. The s-firm is introduced as a contractual arrangement. The neo-institutional school of economics explicitly rejects ‘the central role of the legal system posited by neo-classical economics’, but it maintains that the legal system plays a large indirect role in governing exchange.

An evolutionary approach to economics

An evolutionary approach to economics is not new. Alfred Marshall, for example, had used both biological and mechanical metaphors to describe economic activity. In an influential article written nearly fifty years ago, Alchian, had showed that evolutionary reasoning could guide the neo-classical analysis. One of the most detailed and important expositions of evolutionary competition theory can be found in the published work of Nelson & Winter. A theme explored by McNutt in adapting evolutionary approach to economics is that economic models *per se* have an inherent need to have information at time $t > t_0$, at the time of the dispute. The fact-finder is constrained by the information to hand and any one of the parties involved in the dispute could do better with more information. The need is less acute wherein trade and exchange (the market) provides price information, and the willingness to pay a price for a good facilitates an exchange of that good in the market. But what if it was possible to buy, share or rent information at $t > t_0$? Any one of the parties concerned could share information with the fact-finder.

Even a whistleblower, provided that the expected gain of whistle blowing exceeds the expected loss in any agreed cartel or market rents, will share information. But if the fact-finder could buy or rent information from any one of the parties in a cartel or abuse of market power dispute at time $t > t_0$ would a more efficient contractual arrangement obtain? The underlying revenue or profits distribution of the parties to the dispute would be significant – is the poorer complainant more likely to sell information to the fact-finder? The answer would be in the affirmative if the price and subsequent revenue the fact-finder is willing to pay for information exceeds any gain that the poor complainant would be willing to receive to remain silent.

Whistle blowing has now been institutionalised, it is part of the armoury of a national competition agency, and thus, sadly, it may become a regulatory threat to economic growth. New regulations will represent an external threat to the regulated firm. They presume dishonesty. The government must compare the costs and benefits of its proposed regulatory solution with the private firm solution. Regulations to do with wage legislation, working conditions or pricing should be ranked in terms of how best they can accommodate the private solution. Government should not presume that ‘private imperfections imply that government intervention will improve things’.

Law enforcement is a policy tool that affects the elasticity of due care, and thus the efficiency of law. By determining the effects of changes in policy tools on changes in the elasticity, one could determine the efficiency effects of different policy options. If the tortfeasor, for example, is rational, his or her behaviour would hinge upon a comparison of expected costs and benefits. If, however, he or she is uninformed about punishment and detection rates, then they may not respond in the desired way. There

are problems of bounded rationality and opportunism in the functioning of law, and law has its limits.

If law has its limits, information is a key parameter. While information on market shares alone was at the centre of the older regulatory regime on telecommunications in the EU, regulatory agencies today should widen their investigations on the extent to which competition is effective by reference to several factors which may be relevant to the assessment of market power, for example, information on changes in market shares, information on changes in prices, profitability or the relationship between price and costs.

The national regulatory authorities across the EU 'should determine whether the market is *prospectively* competitive, and thus whether any lack of effective competition is *durable*, by taking into account expected or foreseeable developments over the course of a *reasonable period*'. There is an implicit reference to timing in the evolution of a market. This augurs well for the future in EU regulation. The torchlight of investigation should be focused on the presence of competition and not on the factors demonstrating its absence. However, until policy makers and legislatures acknowledge that price competition is being replaced by competition in innovation across many markets, and that they cannot anticipate future market developments, regulatory authorities will continue to believe that, at times, they should regulate firms' efforts to compete and innovate.

Boolean Logic and Predatory Pricing

The fundamental logic and mathematical relation deployed in economics and law is comparison. Law, Economics and Antitrust introduces a definition of comparison in terms of the characteristics method of proof in logic and mathematics which consists principally in 'skipping intermediaries', as when the fact-finder concludes from A equals B and B equals C that A equals C, by skipping B. The mere fact that such skips are not always possible – since, for example, when A loves B and B loves C, it does not follow that A loves C – should help the fact-finder to see that these relations are not of the fact-finder's making. If p_4 is a predatory price because of the rule that $p_4 < SAVC$, and if $p_5 < p_4$ by the order of prices, then $p_5 < SAVC$ only by skipping the fact that $p_4 < SAVC$. But p_5 may not be a predatory price.

Example: Let's convert the assertions that $p_5 < p_4 < SAVC$ and $p_5 < SAVC$ into a Boolean algebraic logic as follows: Proposition X: if $p_5 < p_4$; Proposition Y: then $p_5 < SAVC$. For all $x \in X$ when X is true and for all $y \in Y$ when Y is true then $x(1 - y) = 0$ which can be read as 'there is no case when X is true and Y is false'. This provides the fact-finder with a logical deduction that p_5 is a predatory price. However, if we interpret the assertion $p_5 < p_4$ as making reference to a particular time, then the fact-finder should read $x(1 - y) = 0$ as 'there is no case *at times when X is true* and Y is false'. This qualifies a finding that p_5 is predatory.

It also introduces a temporal relation into the algebra that underpins the order of prices. But the structure of Boole's logic had its critics. WS Jevons, in particular, disagreed with the Boolean logic, arguing vehemently that the Boolean mathematical logic gives 'uninterpretable or anomalous results'. It lacked a calculus. He continued that 'the true type of inference is the substitution of 'similar', which is founded on

the principle that in whatever relation a thing stands to a second thing, in that same relation it stands to the like or equivalent of that second thing’.

Note: This is a principle underpinning modern antitrust analysis: if the monopoly price (pm) is greater than the competitive price (pc), and if pc is equal to long run marginal costs (LMC), then $pm > LMC$. It was Jevon’s logic for the most part, which penetrated into early twentieth century economics textbooks, and thus laid the bedrock of modern pricing theory. But economics has advanced in terms of understanding the behaviour of firms.

Relevance of Labels

The *Folk Theorem* in game theory, for example, spells out the means by which firms can attain outcomes that appear collusive without necessarily engaging in overt collusion – or, indeed, even discussing together what to do. It shows how collusive outcomes can be attained as (subgame perfect) non-cooperative equilibria. However, in producing cooperative behaviour from a conventional non-cooperative equilibrium, the Folk Theorem, it has been argued, blurs the distinction between explicit collusion and tacit collusion. From the standpoint of intent, this makes anti-trust investigation rather delicate. In addition, it opens up consideration of partial collusion wherein players collude on certain choices (prices) and not on others (location or markets). It also leads to unintentional co-operation or the ASP standard discussed in the *Briefing Note on Antitrust*.

But national competition and regulatory agencies cannot escape the temptation to label firms or firm conduct. Classically, monopoly is ‘bad’ and competition is ‘good’ in a relativist ethical sense of unordered logic. Labelling must not confuse the anointment of a label ‘incumbent’ with the incumbent’s action to guide the use of the resources in the market. Likewise a label ‘market’ must be carefully scrutinised to ensure that it reflects the fact that modern business strategies have become more global. Greater globalised competition has meant new sources of innovation. Product life cycles have become ‘dramatically shorter’ while the number of networks and strategic alliances between firms ‘is growing rapidly especially in information technology, biotechnology and advanced material industries’. Competition is better understood as a process, a spider’s web of shorter product life cycles affecting the R&D process, which in turn is necessary to stay ahead of the nearest rivals.

Most markets as labels are increasingly characterised by a small number of suppliers, by oligopoly. In those markets product differentiation will always ensure a small number of firms, and it is unrealistic to think that consumers as customers normally select their supplier out of hundreds of competitors. Transaction costs alone would be much too high in a market characterised by competition between heterogeneous products. In the model of perfect competition with a homogenous product, everything leads to pure price competition. However, in the real world of asymmetric markets, transaction costs are high. The asymmetry leads to prices, which are substantially above marginal cost.

If the label ‘monopoly firm’ can price without regard to competition, then why would it spend a large proportion of its revenues on R&D? Is it because management regard high product performance as the ultimate arbiter of competitive strength? Or is it the

case that vigorous competition is not necessarily simply price dependent? If monopoly is bad because of market power then an analysis of rents would be useful to identify whether market power is in fact potentially troublesome or simply the outcome of innovation. Where innovative activity is high, the fact-finder should presume that monopoly power does not exist, and thus desist from labelling the firm as a 'monopolist'.

Computing a Monopoly Price

The monopoly price (p_m) in modern antitrust analysis is computed as $LMC / \{1 - 1/\epsilon\}$ and the competitive price (p_c) is computed at LMC. The percentage decrease in price is equal to $1/\epsilon$. It began with Kalecki's original (1939) formula, following Lerner's (1934) original equation $(p - MC)/p = 1/\eta$ relating price and marginal cost to industry elasticity of demand. Stigler's (1964) theory of oligopoly was to be based on the variant $(p - MC)/p = f(H)/\eta$ where $f(H)$ is an *index of the effectiveness of collusion* based on the concentration of the industry measured by the Herfindahl index, H . The industry is said to be more collusive the greater the percentage excess of price over marginal cost. The inherent logic in the arguments presented by Kalecki and Stigler much earlier has now been judicially embraced by the legal language in *Kali & Salz* and in *Gencor/Lonhro* (see Chapter 10 in McNutt). However, there is a corollary to this neat result: this relationship holds only if marginal cost is increasing, or if there are no fixed costs. In the presence of fixed costs or equivalently, with declining marginal costs, the 'competitive price' will necessarily exceed marginal cost.

Logic and economics were closely associated in England during the latter part of the nineteenth century at a time when rigorous arithmetical proofs were being developed. WS Jevons, John Maynard Keynes and Frank Ramsey, for example, were philosopher-economists who were attracted to the mathematical rigour of logic. By the early part of the twentieth century, Cassel had set out what has been described as the Walras-Cassel system 'in which the prices process [had] an intrinsic consistency which can only be expressed by a system of simultaneous equations'. It was a precursor to the general equilibrium theory of Arrow-Debreu-McKenzie (the ADM model) that had appeared in the 1950s, and laid the foundations for modern microeconomic analysis. At issue in *Eastman Kodak* (1992) was whether replacement parts and repair service for Kodak photocopiers are separate markets. The Court had earlier acknowledged in *Jefferson Parish* (1984) that 'not every refusal to sell two products separately can be said to restrain competition'. The majority of the Court in *Eastman Kodak* (1992), however, found that the markets were in fact 'distinct markets' and rejected Kodak's claim that 'even if it held a monopoly in the market for replacement parts for Kodak photocopiers, *interbrand competition* among photocopier manufacturers made it impossible for Kodak to exploit that market power [*Italics added*]'.

The point about inter-brand competition is that simply if firm X could raise prices, it would only be profitable, if firm X did not have to worry about a reaction from rival firm Y. But if all the X dealers eliminate *intra-brand competition* (by imposing a minimum RPM), it is unlikely to monopolise the market because consumers can shift to Y's products. In joining a dissent in *Eastman Kodak*, Justice Scalia had observed that 'no revenue can be derived from setting a higher price for the tied product which would not have been made by setting the optimum price' in situations where

consumers 'tended to demand the two items in fixed proportions'. If the consumers continue to demand X's product because of after-sales service, notwithstanding the RPM, it may pose a threat to Y's market share.

But with intellectual property rights (IPRs) we have products that are bundles of patents and technologies, for example, a Sun server embodies many patents, and thus traditional antitrust analysis based on neo-classical economics may be limited. An economy that falls behind in technology and innovation will be condemned to lower wages and welfare. At time period t_0 a decision to regulate Firm A ex post may secure short term gains but endure long term costs. As the Internet creates new markets, there will have to be a greater reliance on evolutionary market systems with an earmark towards an ethical code of practice. There is as much regulatory failure to contend with today as there is market failure and monopoly abuse. Duties have not been fulfilled and some one has to be held accountable.

Good Governance

From the perspective of an s-firm we can ask: is there a monopoly position that can be exploited honestly?...as in *Arsenal*, the average consumer could purchase a product. In *Illinois Tool Works v Independent Ink* (2006) the US Supreme Court addressed whether the patent holder should be presumed to have market power, when it ties the licence of a patented product to the sale of an unpatented product. Illinois Tool licensed its patented print head technology to customers on the condition that they also purchase unpatented ink. The trial court granted Illinois Tool, summary judgement. It found that Independent Ink had failed to prove Illinois Tool had market power in the print head market, such that it could coerce the purchase of ink from its print head customers. The Federal Circuit reversed, holding that it was not Independent Ink's burden to prove market power, because Illinois Tool is presumed to have market power. The Supreme Court reversed holding that market power cannot be presumed from patent ownership and must be proved through normal economic analysis. This goes to the heart of the economics...in that monopoly power generates a profit and a *high* price and minimises consumer welfare, but the consumer welfare is dependent on the prevailing price paid by the consumer, the consumer's time preference and income elasticity.

It is internationally accepted that corporate governance is one key element in improving economic efficiency, which ultimately balances relationships between a company's management, its board, its shareholders and other stakeholders. Enterprise Risk management [ERM] is a key component of corporate governance. It provides a means of attaining an entity's objectives and monitoring performance of (say) an agent by a principal and assurance of the principal's (the stakeholders) interests via a diligent and efficient behaviour of the agent (the entity). A risk governance approach provides a sound foundation for an ethical ERM system and proffers a robust approach to manage an organisation's risk profile. As required by various risk management standards this approach needs to contain a clear risk management strategy, a set of ethical objectives, supported by the business case, and clearly demarcated roles and responsibilities and support structure within the company. There are key common challenges in developing and implementing risk governance in different jurisdictions. Demidenko and McNutt (2008), focuses on business ethics and

regulatory requirements. Working from the premise that governance regulations on risk management brings forward the necessity to equip organizations with ethical tools which can help them understand how powerful good governance is in driving the risk management, we have developed a set of risk governance diagnostics tools for companies to apply in adopting a maturity ethical framework..

The Nice-Nasty dilemma

But there is a classic Prisoners' dilemma faced by any two individuals opting to cooperate and be nice or compete and be nasty. Nice and Nasty are two decisions for individual players in a game of exchange. An individual can either be nasty or nice. The payoff matrix represents the facts: if the two individuals, Patrick and Anthony are Nice to each other they both will obtain a payoff of 2 each: (2,2). However, if they both are Nasty to each other they will both obtain a payoff of 1 each: (1,1). The ethical dilemma arises as follows: Patrick, knowing that Anthony is Nice, will be Nasty in order to obtain a payoff of 3.

Table 3.1 Nice Nasty Payoff

	Nice	Nasty
Nice	(2,2) <i>'Do Onto Others as they would do onto you'</i>	(0,3) (Patrick is better off with 3: trying to do better but actually worse off)
Nasty	(3,0) (Anthony is better off with 3: trying to do better but actually worse off)	(1,1) <i>'Eye for an Eye, Tooth for a Tooth'</i>

However, Patrick is thinking the same thing as Anthony: if Patrick is Nasty when Anthony is Nice, Patrick will obtain a payoff of 3. Both individuals do not trust each other to be Nice. Soon the Biblical law of *'Eye for an Eye, Tooth for a Tooth'* triggers a degree of conflict as Patrick becomes Nasty when Anthony is Nasty and Anthony becomes Nasty when Patrick is Nasty, and both individuals end up with a perpetual payoff of 1, (1,1). If the two individuals are told by the fact-finder that they have to play this game 10 times, then each will realise that there is a potential maximum payoff of $10 \times 2 = 20$. The elusive payoff of 3 in the second stage of the game as one player turns nasty soon translates into a payoff of 1 for both players as they both realise that the payoff (1,1) is the best they can do given the reaction of the other.

Good governance struggles with this dilemma. Good governance is an attempt to ensure that ethical values, codes, roles and responsibilities are implemented in a clear

risk management structure with a defined set of accountabilities. Audit committees focus on the challenge of overall risk profile and framework; internal audit focuses on assurance of effective risk management and maintains its objectivity assisting with its establishment; a Chief Risk Officer can execute both consulting and executive duties, and is most effective when reporting to the board. The effectiveness of risk management therefore is closely connected with both the integrity and ethical values of senior management who set the 'tone at the top'. It is the matter of understanding the culture of the organization and integrating a formal risk management approach into strategic decision-making. In doing so, risk management can become part of an organization's strategic thinking and ethical values.

By building a robust risk governance structure companies will be in a stronger position to meet compliance requirements especially those required by the relevant securities exchanges and regulatory bodies. They will be able to better transform their risk management into a business tool, an action that allows the fact-finder to monitor how they achieve their key objectives in an ethical way, by fulfilling duties - maximize value of shareholders and balance the interests of all stakeholders - in a responsible manner so that they do not have to be held accountable

Under Construction

Chapter 4

Chapter 5

DRAFT