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GENERAL STRUCTURE OF THE LAW

Donald Wittman

Department of Economics, University of California at Santa Cruz

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Abstract

Economic theory can provide insight into the general structure of the law and the organization of topics in this encyclopedia. After arguing that all of law is contract law, I show how economics can be used to explain the choice between criminal law and tort law, liability rules and property rights, prior regulation and post liability, restitution and torts, and courts and legislatures.

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1. Introduction

Economic theory has a number of core concepts - supply and demand, perfect competition versus monopoly, and high and low transaction costs - among others. All of these concepts and the results derived from them can generate insight into the legal system. The question at hand is whether the theoretical distinctions can also explain the broad structure of the law. That is, can economic analysis provide a partial explanation for the organization of topics in the *Encyclopedia of Law and Economics* and the organization of legal subjects, more generally? For example, is there an economic explanation for invoking criminal sanctions in addition to civil penalties? Is there an economic explanation for the choice between property rights and liability rules? Do contract and constitutional law involve the same underlying theoretical apparatus or do they employ different theoretical constructs? The same can be asked with regard to torts and contracts, and other categorizations.

2. All of Law is Contract Law

The first and possibly the best response is that all areas of the law are guided by the same principle - to create efficient outcomes. An outcome is Pareto efficient if one person cannot be made better off without making someone

worse off (we will not deal with the distinction between wealth maximization and the Pareto principle here). A useful way of conceiving such a result is to suppose that the parties write an optimal contract. In this way, contract law, torts and restitution can be viewed as different manifestations of contract law. For example, in automobile accidents, the law implicitly asks what kind of contract would have been drawn up between the victim and the injurer before the accident happened. The negligence standard finds a person negligent if she did not undertake cost effective preventive procedures. The hypothetical contract suggests that each party would agree to be non-negligent. In the same way, restitution can be seen as contract law for affirmative obligations between parties who otherwise are not transacting with each other.

The analysis can be extended to other areas. As a city grows, it is inefficient to allow pre-existing quarries, feedlots and the like to remain. To use the contract analogy, if a contract had been written thirty years earlier, the feedlot and the city's residents would have agreed to shut down the feedlot when the city expanded. In the United States, such nuisances can be shut down via a civil action or under a zoning regulation. Either way the nuisance owner is not compensated - the court's interpretation of the Constitution does not consider such a regulation a taking (see *Boehm v. Philadelphia*, 1915) nor do the courts require the plaintiffs to compensate the nuisance maker for moving costs (see *Ensign v. Walls*, 1948). Despite their greatly different genealogy, these two areas of law treat the situation in a similar way. And despite the fact that property law was developed before contract law, the concept of contracts enlightens our understanding of the limits of property.

Depending on one's taste, one can stretch the contract analogy still further. During the enlightenment, the concept of a social contract was very popular (see Rousseau) and this concept has been updated in the more recent past to explain constitutional theory (see the chapters in the encyclopedia devoted to this topic).

Economics as a discipline is a great generalizer that tends to cross subject headings. Demand curves are drawn for cars, food and marriage. Likewise in the law, an economic concept can be used in seemingly unrelated areas. For example, if party X acts inefficiently, it makes economic sense that a second party, Y, optimally mitigates the damages that might arise. For example, if a plumber installs a bathtub drain improperly so that bath water leaks into the ceiling below, economic efficiency dictates that the homeowner stops using the bathtub once the problem is discovered. The cost of not taking a bath is less than the benefit of not having the ceiling collapse. This is known as 'mitigation of damages' in contract law. Similarly, it makes no economic sense for a farmer to plant a crop in the presence of sulfur fumes from a nearby factory since sulfur fumes kill crops. Therefore

the farmer will not be compensated for the cost of planting the crop, but only for the lost profits in not being able to plant the crop in the first place (*United Verde Extension Mining Co. v. Ralston*, 1931 - see Wittman, 1981). This is known as the doctrine of 'avoidable consequences' in tort law. Finally, in continental law, a passerby is required to rescue a person lying unconscious on a railroad track if the cost of rescue is trivial. Again, this is just mitigation of damages in a different disguise. So three totally different areas of law are guided by the same economic reasoning.

Having first argued that, at some fundamental level, economic theory provides a unified explanation of the law and then giving an example of an economic concept that is applied to seemingly unrelated legal subjects, I will now try to argue that economic theory can also provide an explanation for the differential structure of the law. Of necessity, the distinctions will be more in shades of gray rather than in black and white.

3. Property Rights, Liability Rules and Communal Rights: The Role of Transaction Costs

Transaction costs in its many guises is often the key to explaining structural differences in the law. Consider the choice between protecting an entitlement via a property right (voluntary transfer) and a liability rule (compensated involuntary transfer). If a state wants to build a highway from A to B, all landowners along the proposed highway have monopoly positions and each will try to extract all the surplus value for herself. Ordinary market mechanisms are not viable (that is, they have extremely high transaction costs) in this case. So the state employs eminent domain (a type of liability rule). As another example, drivers do not negotiate with other drivers and pedestrians for the right to put these other people in danger - the transaction costs would be too high. Instead, they pay ex post for any involuntary transfer (see Demsetz, 1972, for an extended argument). On the other side, where market transaction costs are low, entitlements tend to be protected by a property right - I cannot cut down my neighbor's cherry tree and, if I threaten to do so, my neighbor can get an injunction to prevent such an action. Of course, if I pay him enough, he may let me engage in my obsession.

The standard explanation for not using a liability rule in this case is that it is an imperfect measure of relative value and shifts the costs of decision making onto third parties (courts). Kaplow and Shavell (1996) have argued that this explanation is flawed. Under the shadow of a court-imposed liability rule, the parties can negotiate an outcome that does reflect higher value. For example, if the courts say that the damage to my neighbor is only \$1,000 when I cut down his tree when in fact it is worth \$2,000 to him not

having his tree cut down, then he will be willing to bribe me \$500 not to cut down the tree and I will accept the bribe if cutting cherry trees is worth only \$1,200 to me (since cutting it down will mean a loss of the \$500 bribe plus the court imposed liability of \$1,000).

But Kaplow and Shavell's argument ignores transaction costs. To illustrate, we consider the entitlement structure for movie stars. Paul Newman is both a movie star and an entrepreneur (he has his own line of spaghetti sauce and salad dressing). Paul Newman has the property right to use photographs of himself or his name in advertising, and he can sell that right if it maximizes the return on his human capital. In this way, sales are value maximizing. However, such a property right system involves some exchange costs. Paul Newman must be contacted and a price must be negotiated. These costs are not trivial, yet they are unlikely to be very large since this is not a case of bilateral monopoly (as hard as it is to believe, there are substitutes for Paul Newman, perhaps Tom Cruise). Furthermore only a few people might be involved.

If there were a communal right to Paul Newman's name in advertising, then his name would be overused. 'Paul Newman Bail Bonds' might bring in increased profits to the bail bondsman, but decrease the overall profits of products with Newman's name). Turning this communal right into Paul Newman's property right would be extremely expensive. Every time he bought out one person, another person would arise to make use of his name or picture. So the right would likely remain a communal right, with overuse but no exchange costs. If Paul Newman could buy back the rights, the transaction costs would be very high - he would have to buy the right from many to stop them from using his name (this should be compared to the case were Paul Newman is given the right and then sells it to a few).

When the law gives Paul Newman the property right to his name for advertising, even if the particular allocation is incorrect, it is easily remedied (the other party will just buy the right to Paul Newman's name if it is worth more to the other party than to Paul Newman). When Paul Newman's entitlement to use his name for advertising purposes is only protected by a liability rule, the court's assessment of the damage to Paul Newman may be off. If the court overestimates the cost, essentially Newman's entitlement to his own name is protected by a property right; if the court significantly underestimates the damage, then his entitlement is virtually a communal right. It is very hard to remedy such a mistake, and if it is corrected, very high transaction costs are involved as the actor must buy back the right from numerous contenders. Furthermore, the negotiated price depends on the court's valuation or expected valuation. This adds a needless level of cost and/or uncertainty. So transaction costs are a key to the choice between a property right and a liability rule.

Calabresi and Melamed (1972) provided the first economic explanation for the choice between property rules and liability rules. Since then, there has been a large literature on the subject. For alternative explanations see Polinsky and Shavell (1984) who emphasizes strategic bargaining in the absence of perfect information and Krier and Schwab (1995) who emphasize court misinformation. See Ayres and Talley (1995) who argue that liability rules may facilitate bargaining.

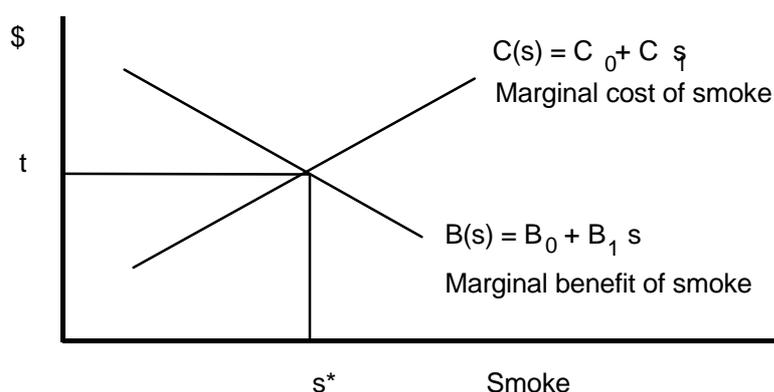
4. Taxes versus Quantity Regulation versus Liability Rules: The Role of Imperfect Information

This topic covers some of the same territory as the previous section but under the assumption that high transaction costs prevent negotiation between the two sides.

Consider the case where a factory pollutes the air and the efficient outcome is that the factory reduces the pollution rather than the neighbors undertake damage prevention. If there is perfect information, pollution taxes, quantity restrictions and liability for the damage can all be set to yield the same efficient outcome. We employ the standard diagram where smoke is on the horizontal axis and dollars are on the vertical axis (see Figure 1). Then the marginal cost of increased smoke to the neighbors is increasing and the marginal benefit to the firm of increased smoke is decreasing (since the marginal cost of smoke abatement rises). The optimal amount of pollution is where these two curves intersect. Setting a pollution tax (or per unit of smoke liability rule) equal to t , the dollar value at the intersection of the marginal cost and benefit curves, will encourage the factory to produce until the tax equals the marginal benefit; that is, the factory will produce the optimal amount, s^* . Similarly, a regulation that the factory produce no more than the optimal amount of smoke, s^* , will again result in the optimal amount of smoke. If the factory is liable (either to the victims or to the government) for the area under the marginal cost of smoke curve, it will again choose the optimal amount of smoke damage.

When there is imperfect information, the various methods need not result in the same outcome (see Figure 2).

Figure 1



Assume that the marginal cost of smoke is $C(s) = C_0 + C_1 s + u$ and that the marginal benefit of smoke is $B(s) = B_0 + B_1 s + v$, where u and v are independently and symmetrically distributed random variables with mean zero. u and v are observed by the pollutee and the polluter, respectively, but not by anyone else, including the courts or other government agencies. Under quantity regulation, the level of smoke is set where the *expected* marginal benefit from smoke abatement equals the expected marginal cost. This level is denoted by \hat{s} . Thus $C_0 + C_1 \hat{s} = B_0 + B_1 \hat{s}$, or

$$\hat{s} = (B_0 - C_0) / (C_1 - B_1)$$

The optimal level of smoke is where actual marginal benefit equals actual marginal cost. This level is denoted by s^* . Thus $C_0 + C_1 s^* + u = B_0 + B_1 s^* + v$, or

$$s^* = (B_0 - C_0 + v - u) / (C_1 - B_1).$$

Quantity regulation causes deadweight losses whenever s^* is not equal to \hat{s} or v is not equal to u . The deadweight loss triangle is

$$0.5 | [s^* - \hat{s}] [B(\hat{s}) - C(\hat{s})] |$$

$$= | [0.5 (v - u) / (C_1 - B_1)] [B_0 + B_1 \hat{s} + v - C_0 - C_1 \hat{s} - u] |$$

$$= | [0.5 (v - u) / (C_1 - B_1)] [B_0 + B_1 (B_0 - C_0) / (C_1 - B_1) + v - C_0 - C_1 (B_0 - C_0) / (C_1 - B_1) - u] |$$

$$= | 0.5 [(v - u) / (C_1 - B_1)] (v - u) |$$

Since u and v are independent, the expected deadweight cost is

$$0.5 (s_v^2 + s_u^2) / (C_1 - B_1).$$

Figure 2

The Pigovian or pollution tax, t , is the level needed to induce efficient smoke production for the *expected* marginal benefit and cost

$$\text{That is, } t = C_0 + C_1 s = B_0 + B_1 s = B_0 + B_1(B_0 + C_0) / (C_1 + B_1).$$

The polluter choose a level of output, s' , where

$$B_0 + B_1 s' + v = t = B_0 + B_1(B_0 + C_0) / (C_1 + B_1).$$

Equivalently,

$$s' = (B_0 + C_0) / (C_1 + B_1) + v / B_1$$

The deadweight loss triangle is

$$\begin{aligned} & 0.5 | (s^* - s') [B(s') - C(s')] | \\ &= 0.5 | [(v + u) / (C_1 + B_1) + v / B_1] (B_0 + B_1 s' + v - C_0 - C_1 s' - u) | \\ &= 0.5 | [(v + u) / (C_1 + B_1) + v / B_1] [(C_1 / B_1) v + u] | \\ &= 0.5 | [B_1 (v + u) + v (C_1 + B_1)] [(C_1 / B_1) v + u] / [(C_1 + B_1) (B_1)] | \end{aligned}$$

So the expected deadweight loss of the Pigovian tax is

$$0.5 [(C_1^2 / B_1^2) s_v^2 + s_u^2] / (C_1 + B_1).$$

Hence the expected deadweight cost of a pollution tax to a quantity regulation is:

$$[(C_1^2 / B_1^2) + s_v^2 / s_u^2] / (s_v^2 + s_u^2)$$

Quantity regulation is preferred to a pollution tax if and only if the cost curve is more elastic than the benefit curve ($|B_1| < |C_1|$). When $|B_1| < |C_1|$, the Pigovian tax works poorly because the marginal cost to the firm, t , is horizontal while the marginal cost to society is relatively vertical. Under regulation, the smoke constraint can be viewed as a vertical marginal cost curve to the firm which more nearly approximates the relatively vertical social marginal cost.

In contrast, strict liability (based on the expected marginal cost curve) is superior to the previous methods regardless of the slopes of the coefficients or the relative size of the error terms. Intuitively, strict liability is preferred because the marginal cost curve to the firm has the same slope as the marginal cost curve to society, in contrast to the Pigovian tax (which is horizontal) and the quantity regulation (which is implicitly vertical). More formally, the ratio of deadweight losses under a regulation relative to the deadweight losses under a liability rule is $1 + (s_v^2 / s_u^2)$ and the ratio of deadweight losses under a Pigovian tax relative to the deadweight losses under a liability rule is $(1 + C_1^2 s_v^2 / B_1^2 s_u^2)$.

Furthermore, the liability rule alternative has lower information costs than either of the other two methods. The liability rule requires that the authority inform the polluter of two parameters C_0 and C_1 whereas quantity regulation and the effluent tax require only one parameter, s or t , respectively. Nevertheless, less information is needed to determine both C_0 and C_1 than is needed to determine s or t . Determining C_0 and C_1 requires surveying only a group of victims of pollution, while determining either s or t requires surveying groups of victims and polluters. For a more detailed discussion see White and Wittman (1983a).

Of course this discussion has not considered other transaction costs. For example, a system of regulation, once in place, requires relatively low court costs in comparison to strict liability for pollution (since the optimal amount of pollution is greater than zero). Although negligence liability has fewer court cases than strict liability, it more nearly approximates a quantity regulation in its effect.

5. Contracts, Specificatio, Contrat versus Tort, Delict, Responsibilite Civile: The Role of Information Transmission

Common law, Roman law and civil law distinguish between two groups (contracts, specificatio, contrat) and (tort, delict, responsabilite civile). These groups roughly correspond to low and high transaction cost situations. In contracts the parties are already transacting with each other; in many tort situations the parties first meet after the damage. But does the nature of the rules differ between these two groupings? A key difference may be the role of information transmission.

Contract law is often concerned with promoting efficient information exchange. *Hadley v. Baxendale* (1854) is the defining case. When the risk of loss is known to only one party to the contract, then the other party is not

liable for the loss if it occurs. This creates the right incentives for the knowledgeable party to inform the other when it is cost effective for the other party to undertake additional precaution.

There are many applications of the basic principle. In trade between two parties involving a standard item, if the seller has superior information about the product, it is often economically efficient to have the seller inform the buyer. Even if it is not a standard product, such as selling a home, if the information can be obtained cheaply by the seller (say by living in the house), then it is economically efficient for the seller to transmit this information to the buyer rather than having potential buyers undertake repeated and costly inspections. Hence in many jurisdictions, home sellers are required to state what items are in disrepair (however, they are not required to state whether their neighbor's house will be up for sale in few weeks). Also, all easements on the property are required to be recorded and on the deed.

On the other side, there are many situations where such information transmission is not required. A geologist is not required by law to tell the present owner of the land that the land is likely to have significant oil deposits. To require such a disclosure would reduce the returns to specialized knowledge regarding oil discovery and ultimately result in a suboptimal amount of oil exploration. Thus in contracts, product liability, and real estate much of the law is devoted to determining the optimal amount of information transmission and then designing rules to promote that outcome.

In contrast, the issue of optimal information transmission is likely to be irrelevant for those tort cases involving harm between people who otherwise would have little contact (that is, for high transaction cost cases). And in such situations, the injurer is liable even for damages that are unforeseen. For example, if a drunk driver smashes into a person with an eggshell skull and as a consequence the victim suffers much greater damage than would ordinarily be the case, the drunk driver is still liable for the additional damage. It would not have helped if the victim carried around a big sign stating that he was especially susceptible to head injuries, and in general carrying around such a sign would not be cost effective. Furthermore, if drunk drivers were liable for less than the actual harm to eggshell skulls, then economic efficiency would require that drunk drivers be liable for more than the actual harm to 'rock skulls'.

However, the issue of information transmission is not entirely absent from high transaction cost situations. Automobiles are required to have brake lights, and in the United States mercaptane is added to natural gas (in this way, people in the vicinity of a natural gas pipe line leak can be warned of the danger by the smell).

Contract and torts differ in another important way. Contracts are written *ex ante* and, when possible, courts tend to rely on the written document rather than engage in their own cost-benefit analysis. The parties to the contract have a comparative advantage in determining the optimal contract. As a consequence, courts tend to hold the breacher strictly liable for the foreseeable damages rather than the courts determining on their own whether the breacher was negligent (of course, one might argue that the word breach is often synonymous with the word negligent). In contrast, the implicit contract in torts is determined by the courts *ex post*. As a result, the negligence rule is more likely to be invoked as the courts have to determine the efficient outcome on their own. See Posner (1992, Chapter 6) for further arguments along this line.

6. Crimes versus Torts: The Role of Limited Liability

The tort system deals with harms, so why do we need a separate system for crimes? For example, why is assault a crime in addition to being a tort? Posner (1985, 1992, Chapter 7) has a well thought-out explanation for needing criminal law in addition to civil law. Essentially, criminals are often judgment proof (their wealth cannot cover their debts) and therefore the tort system is inadequate.

Most crimes involve a coerced transfer in the context of low transaction costs. The person who was shot in a robbery or gave up her wallet to avoid being shot was not a volunteer to the transaction. In order to prevent the conversion of a property right into a liability rule, a punitive damage should be imposed on the perpetrator beyond the payment for the actual harm, which itself may be very high (people do not like to be subjected to physical violence). But unlike breach of contract and many other types of torts, it is often hard to detect the perpetrator of a crime. If the criminal is not always caught, the price to be paid has to be multiplied by $1/\text{probability of being punished}$. Also the criminal should pay for the cost of detection. This raises the price of the crime for those who are actually caught still higher. The resulting high price of a crime means that the criminal is often judgment proof.

Because the person is judgment proof the victim of the crime or her heirs will not have sufficient incentive to find the criminal and bring him to court and the criminal will not be sufficiently deterred by the tort system. In turn, this means that people may undertake self-protection (bodyguards, extra locks, and so on) to avoid being robbed because they know they will not be sufficiently compensated if they are robbed. So the criminal should be liable not only for the robberies committed but also for the cost of prevention that others undertook to prevent the robbery from occurring (but see Kermit and

Lott, 1995, who argue to the contrary). This raises the optimal punishment still further beyond the capacity of the tort system

So the robber needs a non-monetary punishment such as a prison sentence to adequately deter and/or to physically restrain if deterrence is not sufficient. Hence the state enters into the equation. Unlike ordinary torts where the judgment itself involves no social cost but merely a transfer from one party to another, incarceration involves significant costs. So optimal punishment must take this into account.

It should be recognized that the judgment-proof explanation is not the whole story. Criminals may be jailed for petty crimes even when they are wealthy, wealthy anti-trust defendants may be both prosecuted for their crimes and sued for their torts, and there are victimless crimes that are not torts. Also the role of intention has not been fully analyzed. See Klevorick (1985a, 1985b) and Fletcher (1985) for further arguments against the economic model.

7. Prior Regulation versus Post Liability: The Role of Monitoring and Detection Costs

The legal system sometimes regulates the inputs and at other times charges for the output. For example, a person can be fined for drunk driving even in the absence of an accident and/or be found liable for the damage when there is an accident. To the economist, but perhaps not to the general public, the question is why society does not rely solely on sanctioning the output. Fining inputs involves monitoring and distortion costs. Since inputs only increase the likelihood of an accident, there are many more occurrences of the former than the latter. Hence, input monitoring is generally more expensive than output monitoring. Also there are many inputs into the production of the output. Imposing fines for only a few of the inputs will distort the choice set towards those activities that cannot be monitored.

There are several answers to the puzzle. A person may not be sufficiently deterred if they are judgment proof. The judgment-proof problem is much less likely to occur if inputs are sanctioned. The cost of input monitoring can be significantly reduced if there are only random checks. Also, it is sometimes easier to observe inputs than outputs. There may not be other witnesses to the scene of the accident besides those that were involved. Under such circumstances, it may be hard to disentangle the truth. Thus it may make more sense to monitor the inputs, such as drunk driving. See Wittman (1977) and Shavell (1984b) for more detailed arguments.

Not all people are adequately deterred by the threat of punishment for the outcome so they are prevented from further inputs. Drunk drivers sometimes

lose their licenses and are put in jail if they continue to drive under the influence. Private parties can obtain injunctions rather than suing ex post for the resulting harm. Especially in criminal law, inputs are subject to sanction. If X shot at Y and missed, the law does not wait until X has killed Y before doing something about it. Of course, the punishment of attempts has to be less than the punishment for completions; otherwise the person would have more incentive to complete. See Posner (1992) for a more thorough exposition.

Another line of argument considers the defensive action by other parties. Others may undertake economically justified counter-measures to the inappropriate input so that the likelihood of an accident is significantly reduced. Such measures are costly and should be imposed on the party acting inappropriately even if there is no accident. For example, others may swerve out of the way or not even drive in the first place in order to avoid drunk drivers. Such defensive activity by others is costly and should be paid for by the drunk driver even though there was no accident. Hence there are fines for drunk driving, speeding, and so on. For a more thorough argument see Wittman (1981).

If both potential injurers and their victims are risk averse, then risk sharing may be optimal. A potentially fruitful line of research is to investigate how a division between input and output monitoring might improve risk allocation. This would go beyond the standard principal-agent models.

The choice of monitoring technology is applicable to goods as well as bads. In comparison to their counterparts in stores, the income of traveling salesmen are based more on sales than hours on the job. Paying household help by the hour is easier than calculating the value of all of the individual services which may vary from week to week. On the other side, hiring someone to come in and just clean your rugs (or windows) is based on the output.

Input and output monitoring need not be a choice between one or the other. Sometimes it makes sense to do both. But there is always a question of how much input monitoring is necessary - one might require pasteurization but not specify the shape of the bottle in which the milk is sold.

8. Torts versus Restitution: The Role of Court Transaction Costs

Torts compensate for non-negotiated harms while restitution compensates for non-negotiated benefits (Levmore, 1985).

In the absence of transaction costs, the distinction between harm and benefit and tort and restitution is more apparent than real. This can be illustrated by considering an example derived from *Miller v. Schoene* (1958). Cedar trees are vectors for pests that create damage to apple trees but

not to the host cedars. In the state of Virginia, apples are an important agricultural crop while cedars are used mainly for ornamental purposes. Should owners of cedar trees be liable for the harm to apple orchards and the benefit to themselves if the cedar trees are not cut down or should apple growers be liable for the harm to the cedar growers and the benefit to the apple growers if they are? In the absence of transaction costs, this question cannot be answered. Either way, one side is harmed while the other side is benefited.

But in the real world there are transaction costs and such costs are asymmetrical in the two regimes of restitution and tort. In this situation the optimal outcome is clearly to have the cedar trees cut down. If cedar tree owners are liable for the damage to apple growers, they will cut down their trees and, except for mistakes, there will be no court cases. If apple growers (or the state) are liable for the benefit derived from cutting down cedar trees, then all of the cedar tree owners will go to court to collect for the benefit of cutting down their trees. This involves high transaction costs. Although courts can easily estimate that the total cost to all of the cedar tree owners is less than the benefit to all of the apple tree growers, determining the cost to each cedar tree owner is much higher. Furthermore, such a system would require apple growers to compensate all people who would have otherwise planted cedar trees but did not since the apple growers benefit from such a decision. This would make court costs astronomical.

Restitution for benefits has higher court transaction costs than torts for harm (hence the relative unimportance of the law of restitution in comparison to tort law). So when does it make sense to have restitution? We want restitution when the long-run entry of the desirable activity would be seriously eroded if compensation for the benefit did not exist - that is, we want compensation when the transaction costs of compensation are outweighed by the increased existence of the desired activity. Consider bounty hunters who track down people who fled on bail before their case went to trial. If bounty hunters were liable for not catching the criminal, no one would enter the business. So they are rewarded instead. Within the law of restitution proper, doctors can collect for services to an unconscious person found lying on the road even though the payment involves a transaction cost. The doctor bill is generally standard (there is no need for an expensive evidentiary hearing) and without such a payment doctors might just drive by. See Landes and Posner (1978) and Wittman (1984).

9. Contracts versus Constitutions: The Role of Monopoly

In contracts, when the question of monopoly arises, the standard remedy is to choose the competitive equilibrium price or behavior. For example, if a

doctor comes upon an injured person in the middle of a desert, the doctor cannot take advantage of her monopoly position by demanding the person's life savings in return for rescue. She is only allowed to charge her customary rate, that is the competitive price, for such services. Much the same holds for breach of contract. Opportunism arises when one of the parties to a contract exploits the monopoly power temporarily gained through the contractual relationship. Again, the remedy is relatively simple - such opportunistic behavior is punished by the courts so that the parties have incentive not to breach in the first place.

In contrast, there is no easy solution to the problem posed by the monopoly of political power - no third party can enforce the contract between the government and the people. Thus creating an effective government while at the same time avoiding the dangers of monopoly power is the fundamental concern of democratic constitutional theory. The *Federalist Papers* were devoted to finding the proper balance between a well-functioning government and protection from tyranny.

Democracies need to prevent the majority from exploiting the minority via the majority's control of government and at the same time this protection should not allow the minority to exploit the majority. The conflict is always there. If all issues were resolved by simple majority rule, then the majority could exploit the minority, especially if there were a clear majority/minority cleavage in society (say along ethnic lines). Any tampering with simple majority rule (including such seemingly innocuous changes as having a majority rule legislature voted in by majority rule) will result in a bias for the status quo. See May (1952) who demonstrates that only a simple majority rule satisfies the conditions of anonymity (all people are treated alike), neutrality (if people reverse their preferences, the choice is reversed), and positive responsiveness. Consequently, any attempt to protect the minority will enable the minority to extort monopoly rents from the majority.

The problem is acute when unanimity is the decision rule. Although unanimity as an intellectual concept is at the foundation of constitutional theory, in practice it would be unworkable. Everyone would try to extract the gains from an agreement for herself. This monopoly holdout problem would make collective decision making impossible. In practice, something less than majority rule is required so that transaction costs are not too high (see Buchanan and Tullock, 1962).

Beyond the majority/minority issue is the agency problem. The government usually has a near monopoly on the means of coercive power. What is to prevent the military from over-throwing an election? Of course, this problem exists for all governments, not just those that are democratic (see Skepaldas, 1997). This problem is thus more serious than the agency problem facing corporations - stockholders can throw out their managers

and board of directors. Many ingenious solutions have been suggested. In the US the president is the commander and chief of the armed forces; each state can have their own militia, and the people have the right to bear arms. All of these are methods of breaking the monopoly of military power and creating a more competitive system. But clearly, there are costs. State militias are not a good way of organizing for modern warfare. And it is not clear that these safeguards are really necessary (many democratic governments do not guarantee the right to bear arms).

The constitution creates a competitive power arrangement. A federal system limits the power of the central government; and the competition between the states, amongst which the citizens can freely migrate, mitigates against the abuses of monopoly power by the states. The separation of powers between the legislative, executive and judicial branches is ultimately more important for being a separation of power than of powers. In this way, there is competition among the branches, each representing a different set of actors. In order for policy to be implemented, an agreement between these different centers of power is needed.

A second method of reducing the coercive power of a government, at least for those governments that obeys the constitution, is to place limits on the power of the government. Once again looking at the United States Constitution, we can observe various limits. Religious freedom is guaranteed. The takings clause prohibits taking of property without just compensation and juries are of one's peers. See Brennan and Buchanan (1980) for discussion of the appropriate limits on the state.

A constitution is an optimal social contract; it provides the underlying rules for making laws. Like any contract, there is a need to protect the parties from opportunism. Unlike the economic sphere, where a third party can enforce contracts and reduce opportunism, constitutions need built-in mechanisms that enforce but at the same time limit the ability of the government to coerce. In this section we have argued that this is the critical difference between contract law and constitutional law. As is always the case, there are other views. For example, Posner (1992, Chapters 23-28) and Wittman (1995, Chapter 10) argue that the United States constitution is efficiency enhancing while Beard (1948) argues that much of the constitution is merely a protection of the wealthy.

10. Courts versus Legislatures: The Role of Comparative Advantage

While there is considerable overlap between what courts and legislatures do (legislatures regulate some activity that could be decided in court, and courts in the United States decide whether certain legislative rulings are

constitutional), there are critical differences. Legislatures are designed to resolve conflict among many disparate positions. Courts are designed to resolve disputes between two sides. Also courts are set up more for an ex post review of the facts. So it makes sense that each concentrates in its area of comparative advantage.

In the United States, and in many other countries as well, nuisances are mainly controlled by zoning and urban regulation rather than by the common law of torts. An important reason is that urban planning is multifaceted rather than two-sided.

Courts are more adept at deciding efficiency issues than questions of equity. Legislatures are designed to deal with issues of distribution - the political process of electing representatives and of resolving differences within the legislature is basically a means to resolve differences in values. Thus legislatures decide tax and expenditure policy while courts are more likely to determine the efficient incentives for optimal accident reduction and the facts relevant to a particular accident.

There are interesting exceptions. In the United States, impeachment of the president is undertaken by the legislature rather than the courts.

11. Concluding Remarks

Finally, we should not forget a major reason for the subheadings in law is that there are returns to specialization. Both family law and bankruptcy law may use the same economic analysis, but the factual details still differ. Focusing in one area helps the practitioner if not always the theorist.

This contribution has shown how economic theory can provide insight into the 'general structure of the law'. There is considerable room for more research in this area. The answers provided are not complete and there are many more questions to be asked. Examples of the latter include: how and why state laws differ from federal laws, and how and why civil and criminal procedure differ.

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