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Efficiency, Entitlements, and the Value of Consent

What methods should we use to protect a legal entitlement or right? Guido Calabresi and A. Douglas Melamed in their 1972 article, "Property Rules, Liability Rules, and Inalienability: One View of the Cathedral," introduced the distinction between property rules and liability rules that has now formed the template of the debate over this vitally important question. Many look at this debate from the angle of an efficiency-seeking state. To truly evaluate the efficiency of these two rules, we must look beyond the typical determinants of individual valuations. Indirectly, this will take us to ideas related to consent and, more importantly, the subjective valuations individuals place on consent. The point is not that consent justifies efficiency, but rather that individuals may place a value on autonomy or a cost on loss of autonomy. This value or cost must be taken into account when using an analysis based on efficiency.

To understand the consequences and reasons behind property and liability rules, we must consider both Pareto-superior and Pareto-optimal efficiency. Within this context we can analyze the differing effects of property and liability rules. In protecting entitlements, we will work with two kinds of general rules that govern transfers and exchange among individuals: property rules and liability rules. Property rules give the individual autonomy and control over property until choosing to part with it voluntarily. This makes property rights "absolute because the ownership of some asset confers sole and exclusive power on a given individual to determine whether to retain or part with an asset on whatever terms he sees fit" (Epstein 1997: 209 1). Liability rules, on the other hand, give one party the option to take, without consent, the entitlement of another, so long as compensation is rendered. This rule, "denies the holder of the asset the power to exclude others, or indeed, to keep the asset for himself" (Epstein 1997: 209 1).

To better understand the range of actions that these rules cover, we must determine the nature of a legal entitlement. For this debate, we can use a very broad definition, "encompassing" such diverse rights as the right to bodily security, the right to a pollution-free atmosphere, the right to build a house that blocks another's view, or the right to damage another's reputation by false accusation" (Ayres and Balkin 1996: 703). Essentially, entitlements refer to the ability of an individual to act or to maintain property. When an individual's action creates an externality, the system must prescribe a rule to deal with the controversy between that individual's action and another's property or ability to act.

No matter what rules are used, individuals will interact. Sometimes these interactions create a situation in which the entitlements (actions or property) of two individuals clash. Property and liability rules are designed to govern these controversies. To illustrate the difference between the two rules we will look at a dispute between a polluter, 'A', who claims an entitlement to continue polluting and 'B' who wants to prohibit A from polluting because the pollution runs off onto his land. A court trying to settle the case between A and B has four options. The court can either decide in favor of A or B, with either a liability rule or a property rule. If the court decides in favor of B, it can (1) issue an injunction stopping A from polluting-a property rule. B's land is free from pollution, unless he negotiates a deal with A. Or the court can (3) allow A the liberty to continue polluting, but require A to pay damages to B, ex post-a liability rule. B's land will continue to be contaminated with pollution, but he now has a right to compensation determined by a third party-in this case, the court.

The court also has two options if deciding in favor of A, the polluter. Following a property rule, the court can (2) issue an injunction enjoining B from reducing or eliminating A's pollution without A's consent. Or, with a liability rule, the court can (4) give B the liberty of reducing the pollution from A, provided B pays to A a determined amount of compensation, ex post.

Cases involving externalities, as the above pollution example illustrates, are one area where we can use property or liability rules to govern a situation between competing interests. However, many scholars have extended the question to other areas of contention. For example, looking at a simple case, A may take and keep the property of B. A property rule would allow for recovery of the property to B. However, a liability rule would allow A to keep the property, but A must pay damages to B, as determined by the court. (Epstein 1997) In another example of an intentional tort, if A, in taking B's property, destroys it, we'd have no choice but to use a liability rule. A must pay B compensation for the property. We may also use criminal sanctions or punitive damages in this case. This moves toward a property rule. For property rules, the important focus is that the taking and damaging of the property was not justified, even with the compensation. Criminal sanctions or punitive damages set the costs high enough to reduce incentives to committing the tort. Accidents are yet another situation where we are more likely to stick with liability rules. An accident is, "a set of consequences that was unintended and unwanted from the point of view of the party who brought it about" (Epstein 1997: 2 100). Here, there is no motivation for repeat action on the part of the initiator of the accident. According to Epstein there exists, "no danger of multiple sequential transformations of property rights" (Epstein 1997: 2 100). We don't need criminal sanctions or punitive damages to persuade the individual not to commit the damage. Since restoration to the original owner is

not possible, due to the damage or destruction, we must settle for a liability rule. Finally, some have extended property and liability rules to their descriptions of contracts. Here, property and liability rules coincide with the difference between specific performance and expectation damages. If A violates his contract with B, then the court may use specific performance, forcing A to perform the contract (a property rule), or decide for expectation damages forcing A to pay B the value B lost from the unperformed contract (a liability rule).

In judging these rules in the context of efficiency, we distinguish between Pareto-superior efficiency and Pareto-optimal efficiency. "An allocation of resources is Pareto-superior to an alternative if and only if no one is made worse off by the distribution and the welfare of at least one person is improved" (Coleman 1988: 97). This describes a dynamic change. Pareto-superior efficiency can only be judged by comparing two conditions-prior and post change. It makes no claims or assessments of the current situation relating to all other situations; only the current situation relating to the situation before the change. "Resources are allocated in a Pareto-optimal fashion if and only if any further reallocation of them can enhance the welfare of one person only at the expense of another" (Coleman 1988: 97). Pareto-optimal efficiency describes a static position, rather than a change. A Pareto-optimal state exists only if there are no Pareto-superior moves remaining. Here, no claims can be made of other Pareto-optimal states, Pareto-optimal states are thus non-comparable. Several Pareto-optimal states might exist. This keeps the focus on the consequences of the exchange compared to the situation before the exchange, rather than on the absolute position of each party. Here, it is important to understand the limitations of this type of efficiency analysis. We are not dealing with the original distribution, only allocative changes after that distribution.

Both property and liability rules involve exchange. Most debate surrounding these rules argue within efficiency, understanding that exchange should be encouraged when it will lead to a Pareto-superior move. To illustrate this claim, we could use a market system as an example. In making a contract or exchange, both parties seek to receive a good or service that they value more than what they are trading away. From this simple point of view, every exchange should be beneficial because both sides want to make the trade and gain something they value higher than what they are giving up. A libertarian approach would support this move, because of the emphasis on autonomy both sides making the decision to trade. Our focus, an efficiency-seeking approach, also supports the change, but for different reasons. Here, we compare the positions of both parties before and after the trade. Because at least one position is improved and no one is harmed, this is a Pareto-superior move. In fact, in this situation, both parties should be better off. Would anyone freely

consent to a deal that would impair his current situation? The idea of efficiency generally seeks to encourage the flow of goods (inclusive of everything that can be traded) so each good moves toward the individual or entity that values it most. This idea focuses on the movement of goods, rather than the distribution of goods. Other foundational theories may critique the "original distribution." Our inquiry deals "merely" with the flow of goods.

The importance placed on efficiency was stimulated in large part by the work of an individual named Ronald Coase. He described a sort of utopia for economists-- a world without transaction costs. Included within transactions costs are the physical costs of preparing for and making the deal, absence of information on either side (including information regarding the other entity's valuation of the negotiated good), and time costs. Without transaction costs, according to Coase, it would not matter if we used property or liability rules; an efficient system would result. When he developed these ideas, Coase did not distinguish between Pareto-superior and Pareto-optimal. Goods would flow to those who valued them most. The price of compensation set with liability rules would be the same as individuals bargaining without transaction costs (Coase 1960).

In the real world, however, we don't have a system lacking transaction costs. Conditions of exchange are not always ideal. To account for this real world system of transaction costs, Calabresi and Melamed set up their distinctions determining whether property or liability rules should be used. They recognized that transaction costs often created situations in which conditions were not favorable for mutually beneficial trade. The transaction costs made the price of the trade too high for at least one of the parties (Calabresi and Melamed 1972). To reach a Pareto-superior transfer and Pareto-optimal condition, we could not necessarily rely on consensual exchange. Liability rules are set up to allow trade without the consent of both parties. The idea is to set the amount of compensation or price at the same level the parties might negotiate in a system without transaction costs. For example, if party A takes a piece of property from party B, instead of being forced to give B back his property, A would have to pay B a determined amount of compensation. The key is to make the compensation the same as A and B would negotiate in a world without transaction costs. This should theoretically lead to a Pareto-superior transfer.

Right away one sees problems with liability rules. They may not yield the expected and desired goal of greater efficiency. How is the state able to determine the actual price outside of transaction costs? The state or the judge will make the decision inside a world with transaction costs. This includes costs such as imperfect information. How is the state to know what value each party places on the property? Here, we see a major problem. If the state values the good at too low of a price, then we will have a continuous taking. If A values

his own piece of property at \$200 and B values the property at \$175, then the Pareto-optimal solution would allow A to keep the property. However, if the state incorrectly determines the value at \$150, then B would be motivated to take the property from A and pay B \$150, \$25 less than B values the property. Then A would be motivated to retake the property from B. We would find ourselves in a situation of perpetual taking, without increasing our likelihood of a Pareto-optimal condition. In fact, we would be in a less ideal state because of the lost value from taking and retaking. We also run into the problem of subjective and sentimental value. For example, a liability rule would allow A to steal a wedding ring from B, so long as A paid B the market value. Most likely, B values the wedding ring much higher than market value. How is the state to determine the value that B places on the wedding ring? With great difficulty and costs, the state may be able to determine the *average* subjective value of a wedding ring, but could not independently determine the *individual* subjective value.

Other problems develop if the state sets the value of an asset at the same price two individuals would bargain for without transaction costs. Why would individuals continue to bargain in the system with liability rules? The exchange, although the same deal in an efficient system without transaction costs, would actually cost both sides more because of the additional transaction costs. They would benefit from the non-consensual taking because the price is set at the amount before transaction costs. An efficiency-seeking state would set the price at this level because, as described by Coase, in a transaction cost-free world, exchange would lead to the greatest possible efficiency regardless of initial allocation. The goal is to create a situation that, in effect, removes the transaction costs. For example, in a Coasean world A sells B his land for \$100. In a world with transaction costs, A and B bargain and come up with a sale price of \$100. However, because of transaction costs, bargaining costs both parties \$10 each. In a system of liability rules, if the state determines the correct value, B could take A's land and be forced to compensate A with \$100. If B wanted to avoid this non-consensual taking, then B could negotiate with A. They may still come up with the \$100 price. However, because of the transaction costs, B is now effectively paying \$110. Therefore, B has an incentive to non-consensually take A's property. We effectively lose the value of consent in cases where the state correctly determines the value of an asset.

If the state sets the price too low, then A and B will continually take the property from each other. If the state sets the price too high then no exchange will take place without bargaining, and the liability rule essentially has the effect of a property rule anyway. Ayres and Balkin look at this situation from the reverse aspect: "From this perspective, the only difference between liability and property rules is the price of exercising the option-the damages to be

paid for the nonconsensual taking" (Ayres and Balkin 1996: 705). They consider property rules to be liability rules with the price set too high to facilitate a taking. The difference between property and liability rules in their eyes is that, "property rules set the exercise price so high that no one is likely to exercise the option to take nonconsensually, while the lower exercise prices of liability rules presuppose that some people will take nonconsensually" (Ayres and Balkin 1996: 705).

True, property rules do set a much higher price, but a major distinction that they fail to draw is the respective instruments of property and liability rules. As noted by Epstein: "Whenever the law chooses between granting restoration of a chattel or payment of money damages, it picks between a property rule and a liability rule. Whenever it chooses between specific performance and damages in contracts it makes the same choice. Whenever it prefers an injunction to damages, it does the same" (Epstein 1997: 2105). Although it is possible for property and liability rules to have the same general form, it does not necessarily follow. A liability rule protecting an individual from bodily harm would require a compensation payment to the harmed individual. A property rule would, as Ayres and Balkin note, be of the same form, but to a greater degree—such as compensation plus punitive damages, or criminal charges. However, if A takes B's property, then the form of the means to carry out the rule is distinct. A property rule would demand that A return B's property, while a liability rule would just require compensation.

Some cases may be served better by the liability rule. According to Epstein, "liability rules are limited to those circumstances in which property rules work badly, namely, cases where the holdout power implicit in a property rule becomes so large that useful transactions may be blocked by a wider range of strategic behaviors" (Epstein 1997: 2094). One example is the use of eminent domain. If the state needs a spot of land encompassing 50 landowners for a project, then any one of the 50 could hold out, refusing to sell until the state dramatically increased its offer. This action comes from a strategic decision knowing the state needs the piece of land to use the other 49 landowners' land. In bilateral monopoly situations like this, liability rules may work best. As outlined in the 5th Amendment to the Constitution, the state uses a liability rule by providing "just compensation." This is an example of using a liability rule sparingly, when a property rule has broken down. This is not to say the Constitution was necessarily designed and interpreted to seek efficiency, just that in some instances the holdout power may be large enough to increase the comparable worth of a liability rule.

Most debate centering on property and liability rules seeks to demonstrate the superiority of one or the other in different circumstances. Liability and property rules become positive tools for a certain goal. One common goal seeks to create opportunities for Pareto-superior moves and Pareto-optimal conditions.

To accomplish this goal, property and liability rules are manipulated and organized to avoid the efficiency-blocking detriments of transaction costs while creating opportunities for Pareto-superior transfers. Further exploration reveals that there could exist one spot, a missing zone, in which neither a property rule, nor a liability rule can lead to a Pareto-superior move. To illustrate we can use the fanner and rancher example first put forth by Coase. In this case, a farmer and rancher live in adjacent plots of land. The rancher currently possesses a cow. The rancher wants to own a second cow. However, that cow will damage some of the farmer's crops. This is a classical case of an externality. This situation can be manipulated to demonstrate different ideas by changing the initial entitlement, valuations, and conditions. Either the rancher can begin with the entitlement to raise the second cow or the fanner can begin with the ability to prohibit the rancher from raising the cow. This entitlement is transferable and we can govern the situation with either a property or liability rule (Coleman 1988).

In our example, the farmer values the cost of damage at \$40, and the rancher values the cow at \$50. The farmer begins with the entitlement. A Pareto-superior move can occur within the context of a property rule if the fanner sells the entitlement for some price between \$40-\$50-\$45 for example. Here, the fanner will make more money in the trade (\$45) than the damage he must endure (\$40). The rancher will make \$50 with the second cow, while paying \$45 to obtain the entitlement to raise the cow. Both sides improve their lot--a Pareto-superior move. The property rule is sufficient.

However, if transaction costs are introduced, the story may change. If each side must endure \$10 in transaction costs, the most the rancher will pay for the entitlement is \$40, while the least the fanner will accept is \$50. Clearly, with a property rule, no transaction will take place. In this situation, the rule does not lead to a Pareto-optimal condition because a Pareto-superior move is still possible. The rancher still values the cow more than the farmer values the crop damage. The rancher must have the entitlement for a Pareto-optimal condition to arrive in this case.

The natural reaction is to move to a liability rule, set the price somewhere between \$40 and \$50, maybe \$45, and rely on the rancher to make a rational decision to take the entitlement and pay the fanner the set amount. This would seem to move past the transaction costs that would result from the parties having to bargain.

However, this may not necessarily lead us to a Pareto-superior outcome, even if the state sets a correct price. This comes from the effects of instituting liability rules--the wider problems involving lack of consent outlined above. Most analysis of liability rules assumes that the administration of the rule does not affect the internal functioning of the situation. It is supposed that there is no substantial difference in forcing an exchange on one party (a liabil

ity rule) and allowing consensual exchange (a property rule). It is assumed that no value is placed on the ability to consent. But an individual may very well value making the decision to part with an asset, or some cost with having to part with an asset involuntarily. Since valuations are individually subjective, this ability to consent likely plays a role in the determination of the value of an asset. An individual may feel satisfied in parting with an asset for \$40 if he has control over the decision to part with it. However, if it is just taken from him and he is given \$45, he may not feel satisfied. It may require a greater payment to satisfy him.

This departure from consent could create an additional cost to liability rules. The costs may vary per individual and per situation. As they require a subjective value placed on the ability to consent, they are difficult to quantitatively determine. To return to the example, a liability rule set at \$45 may not lead to a Pareto-superior move. True, the transaction costs would be eliminated, but the farmer's subjective valuation of the entitlement may change. The farmer may not be satisfied with \$40 if he doesn't make the decision to consent to the crop damage. It may require an additional \$6 or \$10 or \$20 to satisfy him. In this case, the cost to the farmer is actually greater than \$40 - in fact, it will exceed the price of \$45 set by the state. A forced transfer at \$45 will not actually be a Pareto-superior move, as it would have been if the two sides had bargained for \$45 without transaction costs. If the additional cost of the liability rule to the farmer is \$6, the state can make adjustments with the price, if this cost is measured and anticipated. If the cost exceeds \$10, or the difference in valuations of the two parties, then no price set by a liability rule can lead to a Pareto-superior move.

The spot in which transaction costs are too high for a property rule, and a liability rule would change the valuations to the point exceeding the set price, constitute a missing zone. Neither a property rule nor a liability rule leads to an efficient solution. Here it is impossible to reach a Pareto-optimal condition through a Pareto-superior move without reducing transaction costs.

Clearly, autonomy and choice do matter when seeking efficient solutions. Crucial to this analysis is not the intrinsic worth of these concepts, but the subjective value that individuals give to the opportunity to control their entitlements. For this reason, liability rules are not as favorable in yielding

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