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REVIEW ARTICLES

Complexity and the Law: Richard Epstein's Profound Case for Simplicity

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Richard Epstein, ***Simple Rules for a Complex World,*** *Harvard University Press, Cambridge, Mass., 1995*

ONCE upon a time, human societies were simple, consisting of a single family or a small group of families. Everyone knew everyone else, and hence also their needs, desires and habits. Technology was simple and so were the lifestyle and the law. As technology advanced, societies became larger, more prosperous and more complex. They grew to the point where most members of a society were strangers to one another, but remained associated through recognition of common rules. Until our own age, such rules remained relatively simple and few. In our age, the law has grown exponentially in volume, density and complexity.

The popular theory is that the complexity of the law is the natural consequence of the complexity of society: as society becomes larger and more technologically advanced, the old simple laws become inadequate. In *Simple Rules for a Complex World,* Richard Epstein, a professor of law at the University of Chicago, offers a powerful refutation of this theory.

Epstein's objection to the theory is not new. For example, F. A. Hayek argues in his seminal three-volume work, *Law Legislation and Liberty,* published in the 1970s, that the idea that complex orders can be sustained only by complex laws is a logical and empirical fallacy. He demonstrates that the very complexity of the modern 'Great Society' means that we cannot preserve it by directing its members, but only indirectly by enforcing and improving the abstract rules upon which spontaneous order rests (Hayek, 1973:50-1). But whereas Hayek theorises in the narrative and epistemological tradition of David Hume, Bernard Mandeville, Adam Ferguson and Adam Smith, Epstein builds his case with the analytical tools of contemporary law and economics. The result, however, is the same: a devastating critique of the key assumptions underlying the welfare state.

The significance of Epstein's book is enhanced by its timing. Its publication coincides with the emergence of a new interdisciplinary research program that investigates the nature of complexity and the laws of self-organisation, using mathe-

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matical and computer tools. Epstein's book does not appear to have been pollinated by this research program. However, for reasons discussed below, it has the potential to make an important contribution to the nascent discipline.[1]

Most of the time, people prefer the simple to the complex. Why then has the law become so complex? Epstein proffers both conceptual and practical reasons. In Chapter 2, he deals with two conceptual reasons: the misconceived quest for perfect justice, and the equally misguided notion that the type of complex regulation that is possible in small voluntary associations can be duplicated in large societies. In Chapter 7, Epstein discusses the major practical cause of legal complexity, namely, the politics of redistribution. Redistribution cannot be effected with simple laws because simple laws are necessarily highly abstract and hence cannot guarantee particular outcomes. Under the rule of contract there will always be winners and losers. If wealth is to be equalised, the relative economic positions of individuals need to be constantly adjusted; and provision for such adjustments is necessarily complex. Epstein substantiates these reasons throughout the book with telling examples.

The book is in three parts. In the first part, Epstein investigates the causes of legal complexity and explodes the myth that the technological sophistication of society leads inevitably to complex rules. He draws attention to one remarkable but almost universally ignored fact of history: the last great technological revolution — the 19th-century industrial revolution — was accompanied by a simplification of legal rules (pp. 23-4). In the second part, Epstein identifies his basic rules concerning autonomy and property, contract, tort, necessity, and compensation for coercive deprivation of property. In the third part, he demonstrates how these simple rules produce more efficient results than complex legislation in areas such as the labour market, professional and product liability, corporate governance and environmental protection (where legislative interventionism is at its peak).

The Paradox of Complexity and the Futile Quest for Perfect Justice

Epstein argues that perfect justice is unachievable and the pursuit of it does great harm. Justice, like everything else, is subject to the law of diminishing returns. Initial improvements, such as the observance the rules of natural justice (rules promoting fair hearings and impartiality of adjudicators), lead to major gains. However, perfect justice requires rooting out every error in the individual case. Simple rules cannot achieve this end, for they are necessarily general. They will work only 90-95 per cent of the time. The effort to clean up the last 5 per cent of cases unravels the legal system in so far as it governs the other 95 per cent, since the complexity required to cater to the individual case will generate greater opportunity for deceit. Complex laws score high on aspiration but low on achievement.

Epstein offers many examples to expose the folly of perfectionism. The clearest concerns the simple rule which requires real-estate contracts to be in writing.

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[1] At present, its leading edge is represented by researchers at the Santa Fe Institute, New Mexico, who include the Nobel Prize-winning physicist Murray Gell-Mann (1995) and Stuart Kauffman (1995).

The absence of writing will defeat some legitimate expectations based on oral agreement. But, if oral agreements were enforced, intolerable uncertainty would be created concerning alleged conversations: 'the great engine of cross-examination cannot keep pace with a prepackaged lie' (p. 39). The requirement that real-estate contracts be written does not achieve perfect justice, but it advances the security of the vast majority of routine real-estate transactions.

The power of Epstein's argument for simplicity lies in its own simplicity. Yet, as Hayek demonstrated, there is a more fundamental reason why, in a dynamic order of actions, only certain expectations can be protected. It is only by systematically disappointing some expectations that we can maximise the number of expectations that will be fulfilled (Hayek, 1973:102-3). A society which protected all expectations of all persons would be completely static and non-adaptive. No person would be allowed to respond to a change in her circumstances, since this would be bound to defeat the expectations of some others. I would not be able to change my greengrocer, hairdresser or newsagent because they all rely to some extent on my business. Likewise, these traders would not be allowed to adjust the prices of their goods and services because that would defeat my expectations. Applied universally, this policy would soon bring society to a standstill. Thus, perfect justice is not a real-world option. In an adaptive social order, the law selects those expectations which are to be protected. Since it cannot cater to all concrete situations without impairing the ability of the community to adapt, the laws of a complex order are necessarily abstract and hence simple.

Epstein adopts Peter Schuck's (1992:3) definition of legal complexity with an important additional element. Schuck proposes the qualities of density, technicality, differentiation and indeterminacy as the variables which measure legal complexity. Epstein points out that this test of complexity leaves out the most significant indicator, namely, the cost of compliance. He concludes: 'The fewer and the more accessible the inputs needed to make any legal decision, the simpler the legal system and, all other things being equal, the better its operation' (p. 29).

Epstein's thesis receives support from an unexpected quarter, namely, scientists investigating physical complexity. They are discovering that complex systems in nature function with simple rules. Complexity is not chaos, for in a chaotic situation there is no system at all. Since we are talking about adaptive communities of living beings, complexity in a living system must be a state in between chaos and fixity. Stuart Kauffman (1995:90) thinks that complexity occurs at the 'edge of chaos'. Complex living systems also display the capacity to coordinate complex behaviour of distant elements: that is, to maintain stability while allowing flexible and unpredictable behaviour on the part of its elements. This is what Kauffman (1995) means by complexity. In a simple system such as a family, coordination is easy as all the members know one another and are aware of one another's needs, aspirations, abilities and so forth. Each can reasonably predict the others' behaviour. In contrast, most members of large societies are mutual strangers who cannot predict one another's behaviour except in the most general terms. Yet society can coordinate the activities of these millions of strangers. The actions of thousands of indi-

viduals working in production, transportation, wholesaling and retailing are coordinated with my own action when I buy a cake of soap at the supermarket. This coordination is achieved by a very simple rule of law which requires parties to voluntary agreements to honour them.

It is a startling paradox that complexity is made possible by the simplicity of laws. If there is no law at all, my prospects of buying a cake of soap at the supermarket, or indeed the prospects of the supermarket existing, would be zero. But if the law were complex and dictated the behaviour of each person in great detail, the capacity of the system to utilise each individual's knowledge about his or her own circumstances and wishes would diminish, along with the system's capacity to coordinate the actions of countless strangers. Such a system would be less, not more, complex. This is a point which Hayek first made in *Rules and Order* (1973:49). More than two decades on, scientists investigating complexity and the laws of self-organisation are coming to similar conclusions on experimental data.[2]

Of course, it is not physically possible for the governments to regulate in detail all aspects of social and economic life. Instead, they control particular aspects and interfere continually in private transactions to produce specific outcomes. Even this kind of intervention seriously dislocates a complex order. As Hayek (1973:51) pointed out, 'the reason why such isolated commands requiring specific actions by members of the spontaneous order can never improve but must disrupt that order is that they will refer to a part of a system of interdependent actions determined by information and guided by purposes known only to the several acting persons but not to the directing authority'.

The Family of Humanity and the Communitarian Fallacy

When John Donne wrote the immortal words 'any mans *death diminishes* me, because I am involved with *Mankinde*; And therefore never send to know for whom the *bell tolls; It tolls for* thee', he captured an essential attribute of what it is to be human. *Homo sapiens* is a social (as opposed to a solitary) species which survived, and now thrives, through cooperation. No thinker of any ideological persuasion will seriously question this proposition; the differences among ideologies concern how this cooperation is achieved. Classical liberalism holds that human beings can collaborate most effectively under a regime of abstract impersonal laws securing domains of individual autonomy. Anti-liberal ideologies maintain that governments and legislators have a positive role in determining and enforcing the shape and detail of cooperation. Epstein detects, behind this drive for complex regulation, the error of attempting to transpose on to the Great Society the type of regulation that occurs in small groups such as the family and voluntary associations. Hayek (1976:88) made a similar point when he speculated that the intuitive extension of the model of intimate personal arrangements to the Great Society is dictated by atavistic instincts inherited from our tribal past when most members of the group

[2] See, for example, the experiments using lattices with light bulbs governed by Boolean functions described by Kauffman (1995:86-92). See also Pearce (1994:102).

knew one another. Epstein argues that a current source of the misconception is the success of the family unit.

The family contains complex arrangements concerning when, how and by whom the necessary activities are to be accomplished. Behaviour is adjusted to achieve harmony and the success of the group. The Great Society, in contrast, is characterised by the impersonal relationships that hold among strangers. One option for law makers is to develop a complex set of substantial obligations which mirrors the family arrangements: the social analogue of who washes the dishes and who pays the bills. The trouble is that the administrative cost of gathering the relevant information and of enforcing substantial obligations far exceeds the benefits that are gained through this process. Yet this is precisely the option that has been pursued, in a piecemeal way, by the welfare state.

The idea of humanity as a family found its way into 20th-century politics through socialism. As socialism has retreated in recent times, the idea has re-emerged in the shape of modern communitarianism. Communitarians, unlike socialists, do not demand material equality; indeed, many communitarians are conservatives. They support strong interventionist government to prevent what they see as the breakdown of traditional society through free markets and excessive individualism. They think that the ethic of care and concern for fellow humans must be maintained through coercion if necessary. Communitarians often argue that individuals owe part of their success to the collectivity. How can Michael Jordan earn $50m each year by playing basketball if society did not set up the game of basketball? Epstein provides simple answers to this question. The game of basketball was not created by society but by individuals freely associating to play a game they liked. Not everyone likes basketball, but those who do pay for the entertainment they get from Jordan. Each fan contributes a small amount towards Jordan's income but receives from Jordan much greater value.

There is no question that individuals for the most part are better off in social conditions than in solitary conditions. From the evolutionary viewpoint, the social form of existence is naturally selected as it confers great advantages on the socialising species.[3] There is such a thing as general welfare. But, as Hayek (1976:2) pointed out, in a society which allows individuals to make use of their knowledge for their own purposes, the general welfare can never be the sum of all the private interests, for the simple reason that these purposes, or the circumstances determining them, cannot be known to government or anyone else. Hence, in a free society, government can promote the general welfare only by helping to maintain simple rules which enable individuals to interact for mutual advantage and by providing the

[3] This is not to subscribe to a theory of group selection which holds that entire communities survive or perish according to their fit with the environment. This might have been the case in the distant past where certain communities were totally isolated. However, this is improbable in today's world where cultures impose upon and borrow from each other. There is too much cross-fertilisation for particular communities to die off. Instead, particular cultural practices or institutions are eliminated while others survive as they appear to confer advantages on those who espouse them. Thus, although group selection is unlikely, social structures themselves continue to be fashioned by selection pressures.

narrow range of public goods demanded by most members, but which cannot be provided through private treaty. Reallocation of wealth from one group to another achieves no more than redistribution from one group to another: it does not promote the general welfare.

Epstein presents his most telling argument against communitarian coercion when he points out that it is destructive of community. No one can quarrel with the call for a more concerned and caring community. The objection is to the *coercion* of individuals to care for other members of society who are essentially strangers. The intervention of the state to re-order personal relationships disrupts the true communitarian institutions which are products of voluntary cooperation. The intrusion of the state inhibits the spread of these voluntary associations. Epstein points out that 'communities can be destroyed from without, but they cannot be created from without; they must be built from within' (p. 324).

Epstein identifies the politics of redistribution as the major practical cause of legal complexity. Politicians do not like to make budgetary transfers because that exposes the fact that they are taking from some people to pay others. So they often resort to invisible transfers by regulating the behaviour of some groups to benefit others. Instead of making transparent payments, governments impose mandates on employers, landlords, and traders to provide benefits.

Seven Simple Rules

According to H. L. A. Hart, a developed legal system comprises two types of rules: primary rules of obligation, which form the basic rules of conduct of any society, and secondary rules, which determine how primary rules are conclusively ascertained, introduced, eliminated, varied, and the fact of their violation conclusively determined (Hart, 1994:94). Secondary rules define the powers and procedures of the authorities which declare and enforce the law (courts and other officials) and which make and unmake law (legislatures). They are, broadly speaking, constitutional rules. Epstein's book is about primary rules of obligation. Insofar as it touches secondary rules, it seeks to persuade legislators and judges of the virtue of keeping primary rules simple. However, I argue later that the solution to the problem of complex laws which Epstein expounds lies ultimately in the reform of secondary rules.

Epstein argues that all societies display four basic rules. The first rule recognises self ownership: a degree of personal integrity and autonomy, including the ownership of one's labour. The second recognises personal property. The third sanctifies and enforces solemnly made voluntary agreements (contract). The fourth outlaws the causing of harm to person and property (tort). The specific content of these rules differs from community to community, but it is hard to imagine a functioning society which does not minimally recognise them.

According to Epstein, these four rules will take care of the coordination needs of a society most of the time. There is no society where all members are equally endowed with abilities and property. But simple rules which secure to individuals their labour and property and allow them to deal with one another freely for their

own purposes are likely to produce better solutions to social problems than the complex redistributive mechanisms of the welfare state.

It is said that a system of simple rules which allows individuals to resolve their problems through private arrangements will lead to the systematic exploitation of the poor by the rich. This is an understandable intuitive objection, but Epstein believes that it does not stand up to economic analysis. The 'exploitation argument' equates market power with wealth. But market power has more to do with the absence of competition on the relevant side of the market. In fact, wealth can be a disadvantage in the bargaining process. Experienced tourists know that street vendors in developing countries often have two prices: one for tourists bearing hard currency and the other for locals. Similarly, an employee who knows that her employer's business is booming is likely to demand a bigger pay rise. On the other side of the ledger, even where a negotiating party has a short-term bargaining advantage, the market places limits on the extent to which it can be used in the longer term. Workers who are paid too little leave for other employment and workers who demand too much make themselves redundant as the employers scale down their operations or make them more capital intensive. Governments should be looking to remove barriers to the entry of rivals instead of increasing regulatory burdens which reduce competition.

Take and Pay

The four basic rules work where there are multiple actors on both the demand and the supply sides of the market. However, in some situations the market process fails for want of multiple actors. Epstein therefore acknowledges the need for three further simple rules which derogate from the first four. These deal with situations of private necessity, the acquisition of private property for public purposes, and taxation to provide genuine public goods.

Epstein gives a number of graphic examples of private necessity. The most explicit is the case of the dying man in the desert who meets someone with a bottle of water who demands the man's entire wealth in return for the life-saving drink. Another situation is where a sculptor mistakenly uses someone else's block of wood to make a statue. Yet another is where a marriage breaks down and the spouses try to hold out against each other for the best divorce settlement. In all of these situations, the four basic rules will not produce happy outcomes.

The common law tended towards a simple rule in such cases. It gave judgment in favour of the party who valued the object more, subject to that party paying compensation to the other. But how is compensation assessed in the absence of a real market? The simple rule favours awarding to the person parting with something its subjective value to that person. In the case of the drink and the piece of wood, that value would generally be indicated by what the owner paid for it. In the case of divorce, the simple rule will favour divorce on demand subject to alimony and support. The principle is: 'take and pay'. Epstein applies this principle to cases of public necessity. The resources which the state needs for public purposes can usually be procured at the marketplace. However, when the state needs a particular

asset such as a specific piece of land to build a bridge or a road, the only just solution is to take it and pay for it. What is important here is that the compensation for takings be just, as is required by the federal constitutions of the United States and Australia. Determining what is a just payment is often difficult, as the very intention of the state to build a road or carry out public work can greatly affect the market value of the property to be acquired. The common legislative response to this problem is to estimate the market value of the property immediately before the announcement of the state's intent. This is an imperfect solution but is the closest one can get to a just outcome.

The take-and-pay principle provides Epstein the basis for his brilliant argument for the simplicity of a flat tax as against the complexity of progressive taxation. The most common way in which the state takes is through taxation. When the state taxes from the citizen, it does not take her land or chattels but her money. The state pays for this kind of taking by the reverse process of providing the citizen with goods. There are certain goods which are universally desired but which cannot be provided on a user-pays basis owing to the enormous coordination problems involved, of which the most obvious is that of the free rider. Thus, if the state must provide a public good, such as national security or domestic law enforcement, the simple solution is to extract a tax. Clearly, even genuinely public goods are used to varying extents by individual taxpayers. Yet, in the long term, the benefits from genuine public goods tend to even out. Hence, a flat tax makes more sense than a progressive tax. The trouble is that the modern state appears to be more concerned with redistributing wealth than with providing universal public goods. But, Epstein argues, even if we must redistribute, we should prefer the simplicity and transparency of a flat tax which eliminates the political discretion, policing costs and the disincentives which unavoidably attend progressive tax arrangements.

The question of what constitutes genuine public goods, however, remains problematic. The financing of public goods with tax revenue alleviates the problem of free riders but creates the problem of 'forced riders' who are compelled to pay for goods that they do not want. Radical libertarians argue that even collective security and law enforcement are matters that should be left to private arrangements. Epstein does not go this far, but he argues that many of the so-called public goods are in fact redistributory devices which ought to be recognised as such.

Consequential Rules

It is important to understand that when Epstein says that a society needs only seven simple rules, he does not mean that the law can be written down in seven simple sentences. The recognition of any one of Epstein's simple rules entails the acceptance of many consequential rules. Consider the rule that requires contracts to be observed. To enforce this rule, we need to know how a binding contract is formed (offer and acceptance, serious intent, consideration, and so forth), what factors will vitiate it (mistake, misrepresentation, and so on), how it is terminated by breach, and how damages are to be assessed. The critical issue is whether the sub-rules which govern these matters serve or subvert the simple meta-rule. The sub-rule that

a mistake vitiates the contract serves the meta-rule which enforces only genuine agreements. In contrast, the Australian High Court's readiness to set aside a contract on the grounds of 'unconscionable' terms, if it can be called a rule at all, derogates from the meta-rule, for it has nothing to do with genuine agreement. Epstein's thesis would have been more complete and more attractive if it contained a theory of consequential rules.

An intuitive question is why Epstein excludes criminal law from his simple rules. Epstein is right to exclude criminal liability. He limits himself to rules which have '*pervasive application* across routine social activities' as against rules 'directed solely to the dangerous activities of people who live at the margins of society' (pp. 28-9; emphasis in original). This reason is sound. We could add that the major common law crimes such as murder, assault, robbery, theft and rape enforce Epstein's simple rules, while the trivial statutory offences (like failure to fill a form) are merely regulatory devices that are part of the problem of legal complexity.

Conclusion

Epstein's book accomplishes several things. It makes an important contribution to our knowledge of complexity by demonstrating that the success of complex social systems depends not on the complexity of their laws but on their simplicity. Scientists studying complexity have discovered that complex orders in nature are sustained not by detailed circuitry but by general laws produced spontaneously. Coming from a very different direction, Epstein has shown that this is as true of the cultural world of human interaction as it is of the biological and physical worlds. While scientists have been inspired by evolutionary biology and computation, Epstein's intellectual tools comprise practical reason and a brand of sophisticated utilitarianism which recognises its own limitations and avoids naive constructivism.

Epstein has added a powerful new voice to the call to end the regulatory insanity of the modern state. His book provides an easy introduction to the discipline of economic analysis of law. Epstein makes a compelling case for efficiency analysis as a means of identifying and dealing with the coordination problems of society, without the aid of mathematics and visual aids which would alienate many lawyers. In the process he slaughters many sacred cows of public policy, including progressive taxation, the law against unjust dismissal, anti-discrimination laws, product liability, and laws against insider trading .

Epstein challenges, I think successfully, the intellectual arguments for complex laws. But how can the political system be restrained from generating legal complexity? In earlier books, Epstein argued that the takings clause and the doctrine of unconstitutional conditions offer constitutional safeguards in the United States.[4] In

[4] On the takings clause, see Epstein (1985); on unconstitutional conditions, Epstein (1993). The takings clause prohibits the state from appropriating private property without paying just compensation. The doctrine of unconstitutional conditions prevents the state from imposing on citizens conditions for the use of property which have the effect of limiting the citizen's constitutional rights. For example, a

the past, the takings clause compelled the state to compensate persons for outright dispossession, but did not support claims for losses caused by the regulation of property use. Thanks to the efforts of lawyers like Epstein, the clause now supports claims for compensation where regulations cause a significant loss of value. If governments are forced to pay for such losses, there will be less regulation. Regulation is also generated by the monopoly power of the state to give certain types of benefits. Epstein argued in *Bargaining with the State* (1993) that the state's power to coerce citizens by placing conditions on its largesse can be curbed by a more realistic application of the doctrine of unconstitutional conditions.

Epstein's versions of the takings clause and the doctrine of unconstitutional conditions, if implemented, would no doubt inhibit redistributory politics. However, the disease is so deep-seated that we must look further. While continuing to test the efficiency of specific legal rules, we should also investigate the structural reasons which make our higher-order institutions (Hart's secondary rules) produce inefficient laws. This is where the international research program in constitutional economics has so much to offer. This movement, which embraces evolutionary legal theory, public choice theory, the Freiburg School of Ordo-liberalism, property rights theory, institutional economics and other related disciplines, has opened up a new frontier in constitutional theory focusing on the efficiency of the higher-order constitutional rules which govern the generation of lower-order specific rules.

This is not a criticism of Epstein's book, which has splendidly achieved its objective. It is a plea to lawyers to turn their attention to the problem of institutional decay. Richard Epstein's book has made a great contribution to legal and judicial education. To advance this education, the legal community must be introduced to the international discourse on constitutional economics.

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condition which requires welfare recipients to forgo their free-speech rights in order to receive benefits would be clearly unconstitutional under this doctrine.