Economic Analysis of Law: Uses & Limitations

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Abstract

This paper examines one broad question: "How useful is the economic analysis of law?" Before getting to this question this paper defines the *economic analysis of law* (EAL) and traces its historical development. It then compares and contrasts legal and economic methods to determine the uses and limitations of EAL. The conclusion reached is that the benefits of EAL outweigh the costs but that good sense is necessary to determine where benefits exist and how costs can be avoided. The benefits, it is argued, are found in the economic analysis of legal policy where *efficiency* and *utility* are important. EAL may involve costs when applied to the functional areas of the law where *adjudication* and *justice* are more important than efficiency and utility.

Introduction

There is no doubt that the *economic analysis of law* (EAL)[1] now illuminates many areas previously considered the sole province of the law.[2] This has happened because of the growing appreciation that law is an important part of

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1 This paper uses, where possible, the abreviation EAL in place of the longer expression *economic analysis of law*.

2 Landes & Posner in a quantitative study of law citations show the broad extent to which economic analysis is used as a part of legal scholarship. See William Landes & Richard Posner, "The Influence of Economics on Law: A Quantitative Study," *Journal of Law & Economics*, University of Chicago (1993) p. 385. A growing number of basic law-and-economics textbooks exist. The most well known include Posner, *Economic Analysis of Law* (1998) where Posner applies economic analysis to areas of the law such as crime, contracts, torts etc.. See Richard Posner, *Economic Analysis of Law* (6th ed.) Other well known textbooks include Cooter and Ulen, *Law and Economics* (1996), Miceli, *The Economics of the Law* (1998), Katz, *Foundations of the Economic Approach to Law* (1998), Dau-Schmidt and Ulen, *Law and Economics Anthology* (1998), Posner and Parisi, *Law and Economics* (1997), and Mercuro and Medema, *Economics and the Law: From Posner to Post-Modernism* (1997).

economic development rather than simply an exogenous factor. Law is too important economically to be left to lawyers! A stable legal system supported by the rule of law is now widely accepted as a condition for the success of market and non-market economies.[3] However, it needs to be asked whether EAL provides benefits only or whether there are also costs involved when economics is used to describe the law. This paper examines this question in three parts. Part I defines and explains EAL, traces its history, and points to developments that account for its increasing importance. Part II describes the main methods used in the separate disciplines of law and economics. Part III uses the descriptions of law and economics given in Part II to answer the question posed in this paper concerning the benefits and costs that flow from the EAL.[4]

Two conclusions are reached. The *first* conclusion is that EAL is welcome. It is welcome on a theoretical level because it provides one more perspective from which to analyze the law and because it forces the law to go beyond its own internal justifications to explain itself. The questions that it raises about the nature of economics and law and the very complex relationship between them are welcome.[5] EAL is also welcome on a practical level because it provides valuable new insights into the law that can assist legal policy-makers.

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3 Many comparative studies show economies with secure and tradable property rights defended by the rule of law outperform other economies. The existence or otherwise of predictable and stable legal regimes can be the difference between economic growth and stagnation. See Avinash Dixt, *Lawlessness & Economics* and also Anderson, & McChesney, (eds.) *Property Rights*, 2003.

4 It is argued that EAL provides benefits despite the lingering question that surround all inter-disciplinary studies namely whether any one discipline can accurately describe another. Can economics, for example, with its own methods, assumptions, and vocabulary accurately describe legal phenomena? The argument made in this paper is that although economics can be used to describe legal phenomena, economics is better suited to the analysis of some aspects of the law than others.

5 Some writers, such as the author C. P. Snow, have described the humanities (that includes law) and the sciences (that probably now includes economics) as *two cultures*. This is not to say, however, that the knowledge that can be obtained from interdisciplinary studies should be devalued.

The *second* conclusion is that some parts of the law lend themselves to economic analysis more than others. EAL is useful in areas involving *ex ante* policy questions that concern the influence that changes in legal rules have on future individual and institutional behavior. Legal policy-makers, for example, should know how changes in laws that relate to discrimination, air pollution, minimum wages, and excessive rents affect individual behavior. EAL can clearly help in this kind of policy-making area. EAL provides fewer benefits and greater costs when applied to the functional and adjudicative aspects of the law. These aspects of the law rely on a combination of principles of justice rooted in culture and society, and on methods based on precedent and the detailed factual analysis of cases. Modern economics takes a different external approach that eschews *normative* questions of justice and that focuses instead on other questions that coalesce around principles of efficiency, utility, and incentives.[6]

Two other matters should be mentioned for purposes of clarity. First, this paper focuses on the law of the *common law world* [7] not because of any perceived superiority of that law but simply because of the writer's familiarity with it. Secondly, this paper aims to state as simply as possible some of the major issues confronting EAL. As such, it discusses issues belonging to law, economics, and philosophy. This multi-disciplinary approach is necessary because only it leads

6 This was not always the case. Economics used to be a part of moral philosophy as can be most clearly seen in the writing of Adam Smith. It is only in the modern era that economics has become divorced from moral and philosophical questions. See Amartya Sen, *On Ethics & Economics* and also Jeffrey Young, *Economics as a Moral Science: The Political Economy of Adam Smith*.

7 The term *common law world* includes the United Kingdom, and every country that has been colonized by Great Britain including most of the law used in the United States, Canada, Australia, New Zealand, South Africa, India, Malaysia, Brunei, Pakistan, Singapore, Hong Kong, and other Commonwealth countries. It is the result of a continuous search by judges to "find the law" and locate rights not *ab initio* but in the light of the social and institutional *status quo*.

to an understanding of some of the issues that economics and law must deal.[8]

Part I: Definition, Historical Development, and Explanation

Definition

It has been noted that to write about the increasing influence of EAL is easy while actually defining EAL and describing its core principles is a much more difficult matter.[9] One of the most obvious but least illuminating definitions of EAL is that it is an area of economic inquiry to which a substantial knowledge of law is relevant.[10] EAL research needs to be done by an economist familiar with the law, a lawyer familiar with economics, or by an economist-lawyer team. A more illuminating definition of EAL is that it is "the application of economic theory and econometric methods to examine the formation, structure, processes, and impact of law and legal institutions."[11] Another helpful definition is that EAL involves the application of concepts central to economics such as incentive, efficiency, and opportunity cost to the law that brings to the study of the law

8 Ronald Coase argues that interdisciplinary studies are worthwhile even though there will always be academics from both economics and law who will argue that interdisciplinary study does potential violence to their disciplines. All disciplines, it is argued, derive their strength from their focus and from the language and from thinking skills and approaches to problems that those disciplines produce. The use of economics to analyze legal phenomena risks, so the argument goes, weakening the authority of law and undermining the strengths and the credibility of economics as a discipline. Coase concedes this point but goes on to argue that inter-disciplinary studies are still worthwhile. See Ronald Coase, "Economics and Contiguous Disciplines" *Journal of Legal Studies*, 1978, VII (2), p. 201.

9 This is noted by Korobkin & Ulen in "Law & Behavioral Science: Removing the Rationality Assumption from Law & Economics", 88 *California Law Review* (2000) p. 1051

10 See Richard Posner, "The Law & Economics Movement", *American Economic Review*, 77, (1987). p. 4.

11 Charles Rowley, "Public Choice & the Economic Analysis of Law" in Nicholas Mercuro (ed.) *Law & Economics*, Kluwer Academic Publishers, Boston, 1989, p 125. Some prefer to look from the other directon & see EAL as the study of the impact of law on economic systems.

economics' main guiding principle that people respond to incentives.[12] Legal rules, intentionally and unintentionally, provide incentives and encourage or discourage the production of social resources and the efficient allocation of those resources.

Three important consequences follow from the last of the above definitions. First, both economics and law can be used as tools to encourage socially desirable conduct and discourage undesirable conduct. Secondly, law has not only distributive (political) and justice (judicial) consequences but it also has efficiency (economic) consequences. EAL reminds lawmakers, judges, and lawyers to consider the incentive and efficiency implications of the laws they make and enforce. Legal rights that are unobjectionable when viewed in abstract terms or in terms of justice-serving criteria still need to be measured, EAL reminds us, against their opportunity costs. Thirdly, this definition assumes that legal institutions do *not* exist outside the economic system but are variables *within* it. EAL studies the affects of changing one or more variable within the legal system on incentives and individual decision-making in the economy. This method can be applied to legal rules with little direct economic relevance such as criminal law, family law, and torts as well as to legal rules with obvious links to economic reality such as taxation, commercial, and competition law.[13]

12 See Richard Posner, *Economic Analysis of Law* (6th ed.), Aspen Publishers, 2003

13 The champion of this has been Gary Becker. See Becker's *The Economic Approach to Human Behaviour*, University of Chicago Press, Chicago,1976.

History

Economic thinking about the law is traceable back at least to Smith,[14] Locke,[15] Hume, [16] Rousseau, [17] and Bentham [18] whose writings all reflect an understanding of human behavior as resulting from rational choice and from a calculation of the costs and benefits of policies and rules. Smith and Locke discussed the economic affects of laws regulating economic activities. Smith saw smuggling of some products such as wool as legitimate where it occurred in response to *unnatural* legislation.[19] Locke saw that legislation lowering the legal rate of interest would harm rather than assist borrowers.[20] Hume had a clear grasp of the kind of human interaction now described in game theory.[21] Rousseau demonstrated a clear understanding of the *Prisoner's Dilemma* in his

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14 Adam Smith, *Wealth of Nations*, Book IV, Chapter 8.

15 John Locke, *Several papers relating to money, interest and trade*, A. & J Churchill, London, 1696. Locke's papers on money are included in most collected editions. See Kelly, P. H. (ed.), *Locke on Money*, Oxford, Clarendon Press, 1991.

16 David Hume, *Treatise on Human Nature*, 1740, especially Book 3, Part 2, Section 7 "Of the Origin of Government"

17 Jean-Jacques Rousseau, *Discourse on the Origin and Basis of Inequality Among Men*, 1755.

18 Jeremy Bentham, *An Introduction to the Principles of Morals & Legislation* (1789), Clarendon Press, Oxford, 1907.

19 Adam Smith, *Wealth of Nations*, Book IV, Chapter 8. This logic may have been driven as much by natural law jurisprudence as by economics.

20 Locke argued in 1692 against a parliamentary bill designed to reduce the maximum permissible interest rate from the then prevailing 6% to 4%. He felt that law could not fix interest rates that needed to be determined by the market. Locke's argument was classical. He argued that legislation, rather than assisting the borrowers as was intended, would actually harm them. Additional costs would pass to borrowers as people found ways to circumvent the law.

21 Hume saw law as a set of conventions that humans conformed to in order to make co-operation possible in a world of scarcity and limited foresight. He understood this in his example of the draining of the meadow. Hume wrote:

> ... Two neighbors may agree to drain a meadow, which they possess in common; because it is easy for them to know each others mind … But 'tis very difficult, and indeed impossible, that a thousand persons should agree in any such action; it being difficult for them to concert so complicated a design, and still more difficult for them to execute it. Political society easily remedies both these inconveniences.

Hume's work is accessible at http://etext.library.adelaide.edu.au/h/hume/david/h92t/ [accessed 14 March 2007]

description of the stag hunt.[22] Bentham applied his utilitarian calculus of costs or *pains* and benefits or *pleasures* to a number of legal questions.[23]

The mid-1900's saw areas of law of natural interest to economists, such as corporate law, tax law, and competition law, subject to detailed economic analysis. This analysis, however, was confined to this relatively narrow *commercial* field until the 1960's.[24] EAL was confined because it had to contend with resistance from both lawyers and economists. Lawyers felt that economics could not account for the normative and social justice aspirations of the human spirit that were reflected in the law. Economists, for their part, were concerned to retain the focus and vitality of their discipline by focusing attention on market-related matters.

The 1960's saw a broadening of EAL's application largely because of the pioneering joint and individual work of Ronald Coase and Guido Calabresi. The publication of Coase's article *The Problem of Social Cost*[25] was particularly influential. It contained one of the most influential economic claims made concerning modern legal theory, a claim that later came to be known as the *Coase Theorem*.[26] This Theorem holds that when markets are completely

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22 Part II of Rousseau's *Discourse* theorizes that the first human societies began when people forged temporary alliances for hunting. Individuals were not strong enough to subdue stags by themselves so mutual cooperation was the Nash equilibrium. No one could do better no matter what.

23 Jeremy Bentham, *An Introduction to the Principles of Morals & Legislation* (1789), Clarendon Press, Oxford, 1907. Also online at http://www.econlib.org/library/Bentham/bnthPML.html [accessed 7 March 2007]. The great contribution Bentham and his *utilitarianism* made to EAL is discussed later in this paper.

24 One reason for this was that the social sciences became increasingly specialized during much of the twentieth century.

25 Ronald Coase, (1960) "The Problem of Social Cost", *Journal of Law & Economics*, 3, pp. 1-44 reproduced as Chapter 5 in *The Firm, the Market, & the Law*, University of Chicago Press, 1988.

26 George Stigler was the first to use the expression *Coase Theorem* when, in a 1966 economics textbook, he summarized Coase's resolution of the externality problem in the absence of transaction costs. See Stigler, *The Theory of*

competitive and where transaction costs are zero or very low, an efficient set of inputs to production and outputs from production will be chosen by parties regardless of how the law initially assigned property rights. This has had a profound influence on legal analysis for two main reasons. First, it suggests that circumstances will exist under which the achieving of efficiency can occur in the free market without any help from the law. Secondly, and as a corollary of the first reason, it implies that when the market is not free, or when transaction costs are high, an efficient allocation of resources may depend on the law.

The 1970's saw a *second wave*[27] of EAL scholarship that applied economics beyond directly commercial areas of law to "core legal … subjects such as contract, property, tort, and criminal law."[28] As Rowley observes, the distinctive feature of the EAL's *second wave* was that it applied

> market economics to legal institutions, rules, and procedures, which in certain areas (notably in tort and in crime) are not conventionally seen to influence market behavior, but which indeed, are defined in terms of market failure.[29]

Posner's *Economic Analysis of Law*[30] most clearly reflects the kind of expansion characteristic of EAL's *second wave*. Unlike previous works, Posner's was an EAL work written by a lawyer for lawyers that adopted the lawyer's distinctions between different fields of law. Posner in this way was responsible for

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Price, (3rd. edn.) Macmillan, New York, (1966) at p. 113.

27 Richard Posner, 1975, p. 758; Mercuro and Medema, 1997, p. 193.

28 Neil Duxbury, *Patterns of American Jurisprudence*, 1995, p. 340.

29 Charles Rowley, "Public Choice & the Economic Analysis of Law" in Mercuro, Nicholas (ed.) *Law & Economics*.

30 This volume was first published in 1973 and is now in its 6th edition.

broadening the sources from which EAL drew inspiration[31] to include the public choice and game theory.[32] Critics, of course, saw Posner's work much more negatively as a threat that sounded

> … most explicitly the modern theme of economic imperialism: You name the legal field, and I will show you how a few fundamental principles of price theory dictate its implicit economic structure.[33]

Gary Becker's economic analyses of non-market behavior also assisted EAL's expansion into non-market areas of the law.[34] Becker explained the broad role he saw for economic analysis:

> I have come to the position that the economic approach is a comprehensive one that is applicable to all human behavior, be it behavior involving money prices or imputed shadow prices, repeated or infrequent decisions, large or minor decisions, emotional or mechanical ends.[35]

Posner has acknowledged the importance of Becker's contribution:

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31 This broadening has both strengthened and weakened traditional approaches to EAL. Game theory, for example, that starts with economics leads into behavioral theories that introduce non-economic factors into the decision-making process.

32 Game theory applies rational choice ideas to the interaction of two or more actors with the attendant opportunities for free-rider and hold-out strategies.

33 Richard Epstein, (1997), "Law and Economics: Its Glorious Past and Cloudy Future", 64 *University of Chicago Law Review*, 1167-1174 at p. 1168.

34 This starts with his 1955 doctoral dissertation on *Discrimination in the Market Place* and broadens in his later work on the economics of crime, the family, human capital, and alleged (ir)rational behavior (see Becker, 1957, 1964, 1968, 1981, 1992).

35 Gary Becker, *The Economic Approach to Human Behavior*, 1976, p. 8.

> Becker's insistence on the relevance of economics to a surprising range of nonmarket behavior (including charity, love, and addiction), as well as his specific contributions to the economic analysis of crime, racial discrimination, and marriage and divorce, opened to economic analysis large areas of the legal system not reached by Calabresi's and Coase's studies of property rights and liability rules.[36]

Explanation

Why did EAL expand[37] to give us theories of property rights, organizations, governance, education, marriage, the family, crime, punishment, sexual discrimination, and the law to name a few?[38] There are a number of reasons that can be grouped under two headings. *First*, there are those reasons that relate to changes in the world that together made the question of why and how property and other legal rights were determined in different ways across different societies a pressing one. *Secondly*, there are those reasons that relate to the economic method itself and to its strengths and simplicity that made it an attractive alternative. I will explain these two points in turn.

The first set of reasons given in answer to our question all concern the changes brought about by the arrival of the *global village* that led to a search for legal (and other) principles that were not rooted in any particular culture or faith. The traditional sixteenth and seventeenth century *natural law* explanation of property and other rights was rooted squarely in the western tradition. According to this tradition, rights were given to humankind as a matter of nature logically prior to any positive legal system. This explanation lost its

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36 Richard Posner, *Economic Analysis of Law*, (1998) p. 26.

37 Economic reasoning, broadly defined, has always been exercised within the field of law. Law's age-old search for a fair division of the burdens of accidents is not very different from economics' concern with the efficient allocation of risk. What is being looked at here, therefore, is not something new but the re-expression of something old.

38 Richard Posner lists these areas in "The Law & Economics Movement", *American Economic Review*, 77, (1987)

potency when it was realized in the modern world that it could not account for the variations of rights over time and between different geographical areas. Legal systems, as a result, found their legitimacy challenged as traditional explanations based on religious and communitarian values and rights became less and less persuasive.

Other developments such as the rise of scientific thinking during the nineteenth and twentieth centuries also contributed to the crisis in legal theory.[39] Scientific thinking hastened the decline of *natural law* explanations and led to their replacement by *positive law* explanations.[40] The rise of empirical science meant that *normative* questions concerning what law *ought* to be were separated from the *serious* empirical study of the law and handed over to theologians and ethicists to deal with.

Bentham's *utilitarianism* led to other changes in attitudes. Bentham, like later EAL scholars, believed that the question of the goodness or badness of a law could only be judged by the principle of utility.[41] In holding that *ought* questions relevant to legal policy were to be answered by measuring *utility* ("that which maximized happiness") other *normative* values were sidelined. Bentham believed that utility could be measured and that maximizing utility constituted the ultimate good. Utility became the only measure. *Ought* questions, in this way, were transformed into *is* questions.[42] Bentham (like Smith) accepted the

39 See Richard Posner, "The Law and Economics Movement", *American Economic Review*, (1987) p. 77.

40 These legal theories are explained in Part II below.

41 It is ironic that the utilitarian principle that one man's happiness is equal to another's is grounded in the *natural law* right to equality.

42 It is said that there is really two areas of human inquiry. One field is the field of facts which is concerned with what *is* the case and whose propositions can be either true or false. The other field is the field of values concerned with what *ought* to be and whose propositions cannot be proven true or false. It has become common to refer to this distinction by referring to propositions that deal with ought as *normative* (because they often based on norms) and to propositions that

subjective nature of morality, but at the same time used the positive observation that the behavior of humankind is *in fact* dominated by pain and pleasure to reach the conclusion that the proper end of legal and economic systems consisted in increasing human happiness or welfare by increasing pleasure and diminishing pain. Bentham was, therefore, able to reject all *natural law* thinking and argue instead that the law could only be properly understood as a *positive* measurable field free from *normative* influences.

The final major development behind EAL's emergence was postmodernism and the challenge it made to traditional legal theory. Postmodernism, like other movements such as critical legal studies, insisted that the law provide more than a self-serving *discourse of legitimation*[43] that used its own internal rules to bestow legitimacy upon itself. The postmodern world challenged legal theory to come up with external, non-legal descriptions and explanations of legal phenomena. EAL took up the challenge.

The second set of reasons that explain EAL's expansion involve the simplicity and strength of the economic method itself that helped economics successfully expand into contiguous disciplines such as sociology, politics, and law. Economists found themselves, on occasion, able to answer questions raised in these disciplines more simply than the practitioners of these fields themselves. The economic assumption that humans were to be seen as rational utility

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deal with facts as *positive*. Both legal theory and economic theory recognize this division. David Hume argued that we can never prove what *ought* to be (a *normative* proposition) from an inference of something that *is* a fact (a *positive* proposition). This is what has become known as the *is-ought gap*. Justification for rules of morality according to Hume could not be found in reason but only in the desires of humankind or what Hume described as the *passions*. Hume's friend, Adam Smith, used a similar expression when he wrote of the moral *sentiments*.

43 See Jean-Francois Lyotard, *The Post-Modern Condition: A Report on Knowledge*, Bennington & Massumi (trans.), University of Minnesota Press, Minneapolis, 1984.

maximisers[44] allowed it to make simpler and clearer answers to complex policy questions. Other solutions offered tended to be either unscientific or overly complex.[45]

Economics came to be seen as the *science of human choice* and as the appropriate method for studying all purposeful human behavior.[46] Economics was able to provide a kind of global standard that could explain and provide a kind of foundation and legitimacy to law in ways that traditional legal theory could not.[47] It could, for example, explain changes in property and other legal rights as a reflection of changes in economic conditions that in turn influenced individual rational wealth-maximizing decisions. Different rights and laws, and changes in those rights and laws over time, could be explained simply as responses to changes in the surrounding incentive system. This is very simple and very appealing.

Part II: Legal and Economic Methods

An understanding of what EAL can and cannot do must start with an understanding of the principles central to legal and economic theory and method.[48]

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44 This strength is seen by others as reductionist and as one of economics' great weaknesses.

45 Assumptions and models based on them have the distinct advantage of simplicity. The alternative is long winded and literary descriptions.

46 Ronald Coase, "Economics and contiguous disciplines" *Journal of Legal Studies*, 1978, VII (2), pp. 207..

47 See Cooter & Rubenfeld, "Economic Analysis of Legal Disputes & Their Resolution," *Journal of Economic Literature*, vol. 27, no. 3, 1989

48 Klaus Schokkaert makes this point in Erik Schokkaert, "The Economics of distributive justice, welfare and freedom", in Klaus R. Scherer (ed.), *Justice: Interdisciplinary Perspectives*, Cambridge University Press, 1992.

Legal method

The following five statements can be made concerning the law:

1. law traditionally emphasizes *normative* and *social* approaches
2. law is beginning to recognize *positive* aspects
3. law is based on *reason* and *reasonableness*
4. law is *inductive*
5. law emphasizes the *ex post* ("the past") in it functional aspects

The following paragraphs take up each of these principles in turn.

1. Legal theory traditionally starts with a discussion of *normative* questions concerning human nature and the role humans should play in the world. The close relationship between law and morality can be seen in the similar language each uses. Both legal and moral discourse uses the word *norms*, and both describe conduct in terms of *obligations*, *duties*, *rights,* and *wrongs*.[49] Human nature is usually seen as inherently good but as corruptible by social factors or as easily corrupted by evil.[50] Loss of innocence, or the *fallen man* of

49 The correspondence of language between law and morality is so clear that it traps the unwary into thinking that all law is based on one kind of moral obligation or other. This is a fallacy that EAL has exposed.

50 The idea of vice and corruption as the key reason for establishing legal institutions became an important feature of Western thought many centuries ago. Seneca, *Moral Essays*, Epistle 2, Book XIV wrote:

> In this primitive state men lived together in peace and happiness, having all things in common; there was no private property. We may infer that there could have been no slavery, and there was no coercive government. As time passed, the primitive innocence disappeared; men became avaricious and dissatisfied with the common enjoyment of the good things of the world, and desired to hold them in their private possession.

Judaeo-Christian thought,[51] was a major justification for legal institutions in Western legal thought for many centuries. The close relationship between law and morality comes from the prominent position accorded to *natural law* theories in legal theory.[52]

2. Modern legal method increasingly recognizes the *positive* (as opposed to the *normative*) aspects of law. Modern *legal positivism* sees law as having three essential features[53] namely that it is (i) a command (ii) laid down by a political sovereign and (iii) enforceable by sanction.[54] *Legal positivism* does not compare law against what is right, fair, or just. Rather, it uncouples law from morality and assesses law according to formal features that distinguish legal rules from non-legal rules.

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51 Law, morality, and religion were treated as inevitably inter-related. Some laws were traced back to divine law givers as in the case of the *Ten Commandments*. This theory of law appears in its classical statement in the writings of Augustine who asserted that law was a necessity to curb man's sinful nature.

52 The strength of natural law theory is obvious. Its strength is that it gives humans the right to appeal against any law that falls short of an ideal. This is seen in the protests made by Sophocles' Antigone against a tyrant's decree that she may not bury her brother and in international law's rejection at various international war and criminal trials of the defence of superior orders. Natural law theory has been credited with the incorporation of bills of human rights in written constitutions and for many other advances.

53 See John Austin, *The Province of Jurisprudence Determined*, W. Rumble (ed.) Cambridge University Press, 1995, (first published, 1832) & *Lectures on Jurisprudence, or The Philosophy of Positive Law*, R. Campbell (ed.), Thoemmes Press, Bristol, 2000 Also see Brian Bix, "On the Dividing Line Between Natural Law Theory & Legal Positivism," *Notre Dame Law Review*, 2000, vol. 75, pp. 1613-1624.

54 Another modern legal theory, *legal realism*, also looks on law as a command but, unlike *legal positivism*, looks beyond the expression of the will of the state as expressed in legislation to the actual expression of that will by the courts. John Salmond, *On Jurisprudence,* Sweet & Maxwell (11th ed.) 1957 argued that while not all law is made by the legislature, all law is recognized and administered by courts and that no rules are recognized by courts that are not rules of law. Another version of *legal realism* has been attributed to Oliver Wendell Holmes who pointed out that individuals who are anxious to secure their own selfish interests will not be interested in what textbooks or statutes decree but rather in what courts are likely to do. "The life of the law" Holmes noted, "has not been logic … it has been experience." See Oliver Wendall Holmes, *The Common Law*, 1881 The rise of legal positivism and legal realism and the decline of natural law thinking over the last century period prepared fertile ground for EAL.

3. Law bases itself on reason[55] and reasonableness. *Natural law* theory claims that law is built upon moral principles discovered by natural reason and that law is only *truly* law inasmuch as it conforms to reason.[56] On the functional level, when parties submit their disputes to a court for determination, for example, the parties assume that the dispute will be decided in accordance with reason and upon principles or rules that exist independently of the personal beliefs of the judges who hear the case. This is a basic assumption of the common law.[57]

Common law judicial decisions must provide a *reasoned* decision based on a consideration of *all* relevant facts and on the application of relevant legal rules. Reasons in judgements serve at least three purposes. Firstly, they allow the parties to a case to see the extent to which their arguments have been understood and accepted. Secondly, they clearly explain the reasoning process behind the decision. Thirdly, reasons declare and apply a principle or rule at a level of generality that transcends the facts of the case enabling other courts to decide other cases, identical in principle but not in detail, in the same way.[58]

Many areas of the law also require that human behavior be reasonable in the

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55 Plato in his *Republic* describes a picture of a state without law in which harmony derives from reason dispensed by Philosopher Kings.

56 There is no shortage of classical legal maxims in support of this response. "The law is reason free from passion" "Law is a regulation in accord with reason, issued by a lawful superior for the common good" and "Reason is the life of the law; nay, the common law itself is nothing else but reason." Laws such as driving a car on the right side of the road in Japan and Australia are not right or wrong *ab initio* but are only right or wrong by convention or enactment.

57 The common law first developed in mediaeval England when judges began making law by first examining community life and finding the customary law as it existed in the local area. Gradually the judges selected the most desirable of the prevailing social norms and began to enforce them generally. These enforced social norms were often described as laws of nature or natural law they were more often called the common law because they were based on the common practices of people.

58 This is the basis of the doctrine of precedent or *stare decisis* in common law systems.

sense that it reflects the behavior of the average rational human being. Reasonableness as used by the law balances a desire to have humans achieve while at the same time insisting that they also get along with each other.[59]

4. Law employs an *inductive* method[60] that moves from observation of facts to the consideration of principles. Unlike the *deductive* method used by economists, the case method used by lawyers uses individual judgments to construct general legal principles. Lawyers, in this way, seek to *induce* rather than *deduce* any universal truth in the law by the careful selection of singular statements that, when put together, form a principle. Lawyers have little interest in the model-building approach of economics and even less interest in the generalisations that economists derive from such models. They are more concerned with the detailed facts surrounding particular cases, and with precise formal arguments. Lawyers are also suspicious of the *ceteris paribus* conditions attached to typical economic models. While these conditions are a necessary part of the economic method, legal training warns lawyers to be cautious of overly general conclusions that threaten to exclude small yet highly relevant facts from proper consideration. The point is not that one approach is preferable but simply that the two approaches are different.

5. Legal method takes an *ex post* or *backward-looking* perspective. This is natural for a discipline such as law that is involved in adjudication. An *ex post* view is needed to answer the sorts of questions with which the law must deal such as "Who acted badly?", "Who was careless?" and "Whose rights were violated?" This puts the legal *ex post* (adjudicative) approach at odds with the

59 Much has been written about reasonableness as used by the law. See Charles W. Bacon &, Franklyn S. Morse, *The Reasonableness of the Law*, Beard Books, 2000.

60 This is especially true of common law systems.

ex ante (policy) approach taken by economics. The *ex post* perspective adopted by legal theory makes law compatible with *deontological* moral theory[61] in that it places a greater concern on fairness and rights irrespective of consequences.[62]

Economic method

An understanding of the merits and limitations of EAL must also include a brief description of economic method as it describes the workings of the market.[63] Five statements can be made:

1. economics is *positivist*
2. economics is *atomistic* – the individual is the ultimate unit of analysis
3. economics assumes that individuals act in a *rational* pursuit of self-interest
4. economics is *deductive*
5. economics takes an *ex ante* or *forward-looking* perspective

The paragraphs that follow take up each of these points in turn.

1. Economics is based on strong *positive* (*empirical* or *scientific*) explanations of human behavior and on weak *normative* explanations concerning such behavior.[64] This *positivist* approach means that EAL is an empirical analysis

61 This very basic introduction to the distinction risks overlooking ways in which the law looks at the future. Any fairness-based theory will have to consider the future consequences in assessing legal rules.

62 Economic theory, by way of contrast, is more compatible with the consequentialist moral outlook. Consequentialists may not care much about *ex ante* questions surrounding whether someone has violated another's rights but only about the consequences of that violation. Deontologists, in contrast, will care much more about the question of rights irrespective of the consequences that result from the violation.

63 Erik Schokkaert makes this point in his paper "The Economics of distributive justice, welfare and freedom" in Klaus R. Scherer (ed.), *Justice: Interdisciplinary Perspectives*, Cambridge University Press, 1992.

64 Korobkin & Ulen, "Law & Behavioral Science: Removing the Rationality Assumption from Law & Economics", 88

that studies the way in which law affects the incentives that individuals have to take various actions. The law is seen as affecting the actions taken by individuals in much the same way as prices.[65] This is in contrast with the *normative* approach traditionally taken by the law.

2. Economics takes an *atomistic* view. It sees the individual as the ultimate unit of analysis. This approach has been described as *methodological individualism*.[66] The economist

> commences with individuals as evaluating, choosing, and acting units. Regardless of the possible complexity of the processes or institutional structures from which outcomes emerge, the economist focuses on individual choices.[67]

Economics has traditionally seen constructs such as governments, firms, and societies as only useful analytically to the extent that they specify how individual preferences and actions are agglomerated.[68] A government, a firm, or a society does not make choices. Economists talk about governments, firms, and societies but only as a shorthand summary for the individuals within those institutions.

3. Economics assumes, usually implicitly rather than explicitly, that individual

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California Law Review (2000).

65 Richard Posner, *Economic Analysis of Law* (1992), Cooter & Ulen, *Law & Economics*, 1995.

66 *Methodological individualism* aims to explain broad questions through the aggregation of individual decisions; the whole is treated as nothing but the sum of its parts. This has in turn been described as *reductionist* because it seeks to explain large entities by reference to smaller ones.

67 James Buchanan, "Good Economics – Bad Law" in *Virginia Law Review*, 1974, vol. 60, p. 4

68 This is changing with the emergence of fields such as institutional economics and behavioral economics. See Hodgson (ed.), *Recent Developments in Institutional Economics*, Edward Elgar Publishing Limited, 2003. See also Frank Dobbin (ed.), *The New Economic Sociology*, Princeton University Press, 2003

behavior is consistent with *rational choice theory*. Although this term lacks one clear definition, most definitions assume that individuals will use all available information to select behaviors that maximize their expected utility.[69] Rationality according to the economist means that people seek to maximize some desired object and choose the best alternatives that the constraints allow. Decisions relating to marriage and divorce, commission of crimes, and to the institution and settlement of litigation are all based on rational choice theory and on the maximization principle. All humans maximize something: consumers maximize utility, firms maximize profits, politicians maximize votes, and charities maximize social welfare.[70] This emphasis is consistent with Lionel Robbins' celebrated definition of economics as "... the science which studies human behavior as a relationship between ends and scarce means which have alternative uses."[71] Posner's definition of economics echoes Robbins' emphasis on rational choice. Posner defines economics as "the science of rational choice in a world - our world - in which resources are limited in relation to human wants."[72]

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69 This is at odds both with traditional moral and legal assumptions concerning reasonableness and the nature of man and with more recent behavioral economics and psychology concerning people's actual behavior that aims at *satisficing* rather than maximizing. The word *satisfice* was coined by Herbert Simon and is a portmanteau of satisfy and suffice. Because human rationality is bounded (they usually do not know the relevant probabilities of outcomes and suffer from imperfect memories) humans actually tend to satisfice rather than maximize. See Herbert Simon, *Administrative Behavior*, The Free Press, New York. 1976 and also Simon's "Theories of Decision Making in Economics and Behavioural Science" in F. G Castles, *Decisions, Organizations and Society*, Penguin (1971) p. 36.

70 See Gary Becker, *The Economic Way of Looking at Life* (Nobel Prize Lecture), 1992. This lecture is downloadable from http://nobelprize.org/nobel_prizes/economics/laureates/1992/becker-lecture.html [accessed 3 February 2007]

71 Lionel Robbins, *An Essay on the Nature and Significance of Economic Science*, 2nd ed. (London: Macmillan, 1935), p.16. The generality of this definition of economics may be surprising. If economics is about choices people make, then economics must be claiming it can study nearly everything about life. And, as already noted, it does. Of course, economists routinely analyze prices, products, and markets. But economists also analyze things such as love and marriage, drug addiction, altruism, terrorism, capital punishment, and practically any other phenomenon about which human beings make choices, which is virtually everything in life.

72 Richard Posner, *Economic Analysis of Law* (1992), p. 3

4. Economics uses *deductive* thought, hypotheses, and models to explain real-world phenomena. What economics aims to do, as a result, is not to provide an accurate or detailed description of reality but simply to provide a model of that reality. As already noted, this approach using models makes the economic analysis of non-economic subjects simple and appealing but also less exacting. Legal method, in contrast, is *inductive*, is more concerned with an accurate and detailed understanding of facts in specific circumstances, is uncomfortable with models and with economics' level of generality, and is more complicated making it less attractive as a descriptive device.

5. Economics asks *ex ante* questions concerning the affect of any change on the future decisions of individuals. This *ex ante* perspective means that economics becomes aligned with policy, *consequentialist* moral theory, and *legal realist* jurisprudence while traditional legal theory's *ex post* perspective aligns it with adjudication, *deontological* moral theory, and *natural law* theory.

Part III: Putting law and economics together

This part brings together the descriptions of legal and economic theory and method just given to examine the uses and limitations of the economic analysis of law. What are the merits of the economic analysis of law with its emphasis on individual welfare/wealth maximization and efficiency? What are its limitations?

It is possible, following our discussion of law and economics, to extract and present key concepts used by law and economics in tabular form:

Law	**Economics**
Past Focus (*Ex post*)	Future Focus (*Ex ante*)
Deontological Ethic	Consequentialist Ethic
Philosophical/Literary	Scientific/Empirical
Normative (*Ought*)	Positive (*Is*)
Social *(Holistic)*	Individualistic (*Atomistic*)
Reasonable (*Satisfice*)	Rational (*Maximise*)
Inductive Logic	Deductive Logic
Justice Promoting	Efficiency Promoting

The question that now needs to be discussed is: How can the economic method

represented on the right side of this table illuminate the legal method represented on the left? I will argue that the features ascribed to economics in the above table mean that economics has a great deal to offer law's *policy-making* elements while it has much less to offer practitioners and judges involved in the day-to-day *adjudicative* or *functional* workings of the law.

EAL scholars contribute much to legal policy-making when they use the economic method and the economic way of seeing the world to analyze property rights, contractual arrangements, and liability rules in terms of efficiency and welfare/wealth promotion. Liability rules in tort are seen as not merely redressing the balance disturbed by an act that caused damage to another, but also as creating the proper incentives for those whose activities might cause damage to others in the future to observe care to the extent that the cost of caring is lower than the cost of the damage prevented.[73] This contribution alone justifies economic accounts of law.

EAL describes the deep economic logic of much of the law when it describes people as responding to legal sanctions in much the same way as they respond to prices. People alter their behavior in the face of heavier legal penalties in much the same way as they respond to increases in prices. In this way, economics can predict how people respond to changing laws. The implications for legal policy-making are enormous. A well-specified system of legal rules (especially of property rights) encourages positive-sum and efficient outcomes, and maximum gains from transactions. Law is not so much a way of achieving a just or fair resolution of disputes or a way of *making men moral*.[74] Rather, the

73 A basic economic logic is seen behind the structure of tort liability. See Steven Shavell, *Economic Analysis of Accident Law* (1987) p. 270 and Landes & Posner, *The Economic Structure of Tort Law* (1987).

74 See Robert George, *Making Men Moral*, Clarendon Press, Oxford, 1993.

efficient transfer and efficient distribution of assets is more important. Efficiency is always relevant to legal policy-making because it is always better to achieve any given goal at a lower cost than at a higher cost. In stressing the relevance of economic logic to the law, EAL challenges legal policy-makers to use *ex ante* thinking that takes into account ways to achieve efficiency.[75]

EAL's strength, however, is also its weakness. In adopting economics' rational choice assumption EAL risks glossing over some of the most important questions that law must consider. Economics, as we have seen, assumes that individuals are maximisers and that humans rationally arrange, or priorize, alternatives.[76] EAL's adoption of this assumption leads to a preference for efficiency and maximization over other ends such as reasonableness, equity, and justice. A failure to fully appreciate these other issues is the major weakness of EAL scholarship. It is also a weakness that can be avoided by using a slightly less fundamentalist and reductionist economic logic. Spigelman notes what he calls the reductionist tendency "amongst proponents of market ideology to treat *the market* as some sort of force of nature" when in reality "a successful market economy is the product of good government and of the law."[77] Adam Smith made a similar point much earlier when he observed that:

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75 EAL scholars have suggested, for example, that parties to contracts be allowed more latitude to stipulate damages than the law currently allows. See Cooter & Ulen, *Law & Economics* (1997) pp. 213-214.

76 Descriptions of this assumption can be found in any introductory economics text such as Samuelson's *Economics*, and Lipsey's *Economics*. The word *rational* as used in economics should not be confused with law's notion of *reason* and *reasonableness*. Rational choice theory and maximization is one of the central elements of modern economics. Criticism of those assumptions is increasing. The psychologist Daniel Kahneman won the Nobel Prize in Economics in 2002 for his work showing that consumers sometimes violate rational choice assumptions. These assumptions are discussed in Part II of this paper when criticisms of EAL- are considered.

77 Honorable J. J. Spigelman, "Economic Rationalism and the Law", [2001] *University of New South Wales Law Journa*l, p. 19.

> Commerce and manufactures can seldom flourish long in any state which does not enjoy a regular administration of justice, in which the people do not feel themselves secure in the possession of their property, in which the faith of contracts is not supported by law….[78]

The lack of attention EAL pays to the question of whether laws and legal systems exist to encourage efficiency alone or whether there are other ends with which legal systems should be concerned is EAL's major limitation.

Lawyers, economists, and legal economists would all agree that legal rules, especially rules relating to property rights, need to encourage the efficient use and distribution of resources. In this regard, both law and economics are concerned with the co-ordination problems that arise in a world of finite resources where individuals pursue inconsistent maximizing strategies. However, economists and lawyers do not agree so readily on the purpose of legal rules in other areas less directly related to property rights. Economics, as we have seen, is more concerned with the future, with policy questions, incentives, and wealth/welfare maximization (or cost minimization) in its analyses of law. The law is concerned, beyond these questions, with other questions relating to conflict resolution, adjudication, fairness, reasonableness[79] and justice. The prescriptive implications of EAL's dearth of normative content threatens to undermine justice. Efficiency is only one of a number of factors including fairness and justice that need to be considered in adjudication and conflict

78 Referred to in Spigelman (above).

79 *Reasonableness* is derived from the reasonable man or reasonable person standard. The reasonable person is a hypothetical individual who is intended to represent a sort of average citizen. The ability of this hypothetical individual to understand matters is used in making decisions of law. The question, "How would a reasonable person act under the same or similar circumstances" is critical in the legal reasoning that applies to negligence and contract law. Reasonableness can be likened to the term *satisficing* made popular by Herbert Simon in *Administrative Behavior*, The Free Press, New York. 1976.

resolution.

Some economists recognize the limitations of economics' purely *positive* analysis of law and society and of its reliance on universal statements that are not strictly observable.[80] Others object to an *economic imperialism* that they see as over-extending, diluting, and trivializing economics as an integrated discipline.[81] Most economic writers, however, are inclined to dismiss justice concerns with arguments that justice is a *legal fiction* that can be explained according to the rational choice model. Behind everything, including justice, most economic writers argue, lies efficiency and the maximization of something.

Lawyers (and ethicists) argue that not only is the priority economics places on wealth/welfare maximization, utility, and efficiency over other goals such as fairness a questionable *normative* position, they also question the assumption that individuals are rational wealth/welfare maximizers as an empirical fact.[82] Lawyers recall their clients' often irrational nature and recall actions of their

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80 Paul Samuelson, "Comment on Nagel's 'Assumptions in Economic Theory'" (1963) *American Economic Review* 231

81 Coase however, describes how the intellectual resistance to law and economics from lawyers and policymakers will not continue. Lawyers have come to realize that the law and economics are intertwined. Similarly, economists have also come to realize that the law and other social sciences are also intertwined with the economic system. In the long run, Coase argues, the value of the economic approach will be appropriated by the practitioners of related other fields. One other matter that lurks in the background in much of the literature is the question of values and the question of what is often referred to as economic imperialism. There seems to be a concern expressed in the literature that economics is a new kind of fundamentalism determined to invade unrelated fields to impose a reductionist and materialist view of the world. There is a grain of truth in this objection. We do see economic analysis being undertaken in areas as diverse as governments, social policy, criminal law, and marriage. This should not prevent the economic analysis of noneconomic phenomena proceeding: open discussion and inquiry must go on.

82 EAL arguments reach absurdity when adherents insist on the unlimited applicability of the maximum value or efficiency principle. Posner, for example, seemed to argue that where the benefits secured by the potential rapist exceed the losses felt by the potential victim, mutual gains from the exchange will exist and, therefore, that *involuntary trades* (such as rape) should be allowed to take place. The continued existence of criminal charges in this are indicates a departure from maximum value or efficiency principles and suggests the necessity of replacing the efficiency principle with some other (legal) principle.

clients' that reflect other non-maximizing altruistic values. Rather than pursuing the goal of wealth/welfare maximization, lawyers also often witness individuals *satisficing* by seeking stable, fair, secure and just outcomes.[83]

The application of economic principles to the law has proceeded simplistically according to a neoclassical economic outlook as it existed prior to the introduction of *public choice theory*. Neoclassical economics prior to public choice theory may have been simpler and more elegant but public choice theory introduces the kind of sophistication necessary to understand human, social, and legal complexities. The point made is *not* that legal reasoning is superior to the rationality used in economics; the point is that it is different and that economics is better suited to policy formulation while legal reasoning and reasonableness is better where questions of *adjudication* are involved.[84]

The above discussion leads us to the positive vs. normative, or efficiency vs. equity, problem. Both economics and law students are taught very soon in their courses to distinguish between positive and normative statements and are taught that the world of science attaches to positive statements while nothing objective, scientific, or certain can be said about the normative world. Modern economists seem to think that efficiency can be objectively measured (using one or other criteria such as the Pareto principle) but that distributive equity cannot be measured because it invokes shared subjective value judgments about what is fair or just. Modern economists then naturally emphasize things that they see as measurable and provable leading to an ignorance of things that they

83 See Francesco Parisi & Vernon L. Smith, *The Law and Economics of Irrational Behavior*, Stanford University Press, 2005.

84 The whole question of the differences between reasonableness and rationality is a fascinating one; narrow or formal rationality can cease to be rational and become unreasonable. See Bruce Chapman, "The Rational and the Reasonable: Social Choice Theory and Adjudication" (1994) 61 *University of Chicago Law Review* 41.

see as unprovable.[85]

There is one major limitation implicit in this approach. The adoption of a *value free* science is itself a value judgment with very clear normative and ethical ramifications.[86] EAL's focus on utility and efficiency is an ideological or *normative* judgment of the kind from which positive economics claims to be free. EAL fails to acknowledge that its so-called *positive* analysis is based on, and in a circular fashion advances, efficiency as a *norm*.[87] The concept of a value free science is itself a value judgment[88] being an attempt to achieve truth, honesty, reason, and understanding through empirical scientific methods alone.

Smith was aware of this limitation and of the need for a pragmatic balance between the positive and the normative (and between efficiency and equity) better than modern economists. Smith saw that the model of rational self-interest was a useful way of understanding and improving the human condition. However, he also saw that the rational self-interest model and its normative aspects were not the whole story. The rational self-interest model cannot be taken as an ethic for individual behavior or taken as a principle of justice or fairness.[89] Smith advanced two arguments here. First, he argued that although moral obligations cannot be proven in a narrow scientific sense, they can and must be reasoned about. Secondly, he argued that what we are actually concerned about does not concern what is right as such but rather concerns a matter of fact concerning what others regard as right. Law and economics can

85 Kenneth Boulding, "Economics as a Moral Science" 59 *American Economic Review*, June 1969, p. 13.

86 See Jeffrey T. Young, *Economics as a Moral Science: The Political Economy of Adam Smith*, Edward Elgar Publishing, Cheltenham, UK, 1997.

87 James Buchanan, "Good Economics - Bad Law" in *Virginia Law Review*, 1974, vol. 60, p. 483.

88 Jeffrey T. Young, *Economics as a Moral Science: The Political Economy of Adam Smith*, p. 6

89 See Kenneth Boulding, "Economics as a Moral Science" 59 *American Economic Review*, June 1969 p. 13

both only study the principles actually approved of by humans and not the principles approved by a perfect being.[90] Smith used the principle of the *impartial observer* to understand conclusions that individuals and their societies reach. He was, in this way, able to go beyond the empirical observations of the actions of others (which is what economics does best) to establish a higher standard of judgment based on individual conscience.[91] It is this kind of search for a balance between the positive and the normative (and between efficiency and equity) that makes individuals, societies, legal systems, and economies successful.[92]

Conclusion

EAL is useful but it does have clear limitations. It is useful because it provides a welcome external, analytical view of the law. This results in a new and critical approach to the law that challenges law's self-sustaining dogmatism[93] and its overly narrow assumptions concerning justice.[94] Legal theory has been based on a self-contained and self-justifying logic of language interpretation and case analysis for too long.[95] EAL is also useful because it promotes an *ex ante* policy analysis of the law. It focuses attention on the consequences of the application of legal rules on affected individuals, firms, organizations, markets, and

90 Kenneth Boulding, "Economics as a Moral Science" 59 *American Economic Review*, June 1969, p. 14

91 Kenneth Boulding, "Economics as a Moral Science" 59 *American Economic Review*, June 1969, p. 37

92 Knud Haakonssen, *The Science of a Legislator: The Natural Jurisprudence of David Hume & Adam Smith*, Cambridge University Press, 1981

93 The rise of economic analyses of law also coincided with the rise of other movements that demanded external, non-legal descriptions and explanations of legal phenomena. Included in these movements were the critical studies, institutional economics and socio-legal studies movements.

94 Economic theory also faces similar objections to its own assumptions relating to the wealth-maximizing motive, self-interest, and the rational nature attributed to humans.

95 The case method used in the study of law sees law as best studied and understood by inductive study of actual legal situations and by following precedents set by earlier courts.

governments. Legal theory had failed to systematically assess the consequences of legal rules and had also failed to state clearly the conceptions of private and public good against which legal rules need to be measured. Studying the economic affects of legal rules helps policy-makers evaluate legal policies by considering the affects of legal rules on economies and on the public good.

Despite these benefits, we need to be quite clear about EAL's limitations. Good *positive* economic analysis must exclude itself from *normative* pronouncements regarding the adjudicative, decision-making functions of the law. EAL's own *positivist* assumptions allow it to deal directly and productively with the *positive* aspects of law but preclude it from deep analysis of law's more functional and *normative* aspects. When EAL attempts to use (like Bentham) *positive* and *empirical* methods to determine *normative* questions it is trying to do the impossible. While EAL can provide valuable *ex ante* insights on legal policy-making, it adds little or nothing to the *ex post* and *normative* questions raised by adjudication, fairness, and restorative justice.

Rational maximizing assumptions concerning human nature assist in understanding some aspects of the law but do not ultimately define the law. The law is a field in which socially determined *normative* standards of fairness are relevant and it is from a consideration of these very areas that economics, because of its own scientific or positive assumptions, disqualifies itself. While it is true that if the law fails to allocate rights and duties between parties in such a way as to maximize value, parties will soon use other means[96] to nullify the

96 Most lawyers would agree completely with Coase that when mutual gains are present, parties will be motivated to initiate trades as a way of capturing potential surplus value. See Ronald Coase "The Problem of Social Cost", *Journal of Law & Economics*, and Robert Ellickson, *Order Without Law: How Neighbors Settle Disputes*, Cambridge, Massachusetts, Harvard University Press, 1991

strictly legal allocation, maximization is only one of a number of approaches useful in attaining law's functional objectives. EAL is at its best in the *ex ante* policy area where efficiency is relevant. It is at its weakest in the *ex post* functional and adjudicative areas of the law where greater emphasis is placed on subjective, normative, non-economic factors.

References

- Anderson, T. L., & McChesney, Fred S., (eds.) *Property Rights*, Princeton University Press, 2003.
- Austin, John, *The Province of Jurisprudence Determined*, Prometheus Books, 2000
- Ayers, C. E., "Moral Confusion in Economics" in Samuels, Warren (ed.) *Schools of Thought in Economics, Volume 5 Institutional Economics II*, Edward Elgar Publishing, Aldershot, 1988.
- Becker, Gary S., *The Economics of Discrimination*, University of Chicago Press, Chicago, 1957
- Becker, Gary S, *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, University of Chicago Press, Chicago, 1964
- Becker, Gary S, "Crime and Punishment: An Economic Approach" *The Journal of Political Economy* 76: 169-217, 1968
- Becker, Gary, S., *The Economic Approach to Human Behavior*, University of Chicago Press, Chicago, 1976.
- Becker, Gary S, *A Treatise on the Family*, Harvard University Press, Cambridge MA, 1981
- Becker, Gary S *The Economic Way of Looking at Life* (Nobel Prize Lecture), 1992 at http://nobelprize.org/nobel_prizes/economics/laureates/1992/becker-lecture.html
- Boulding, Kenneth E., "Economics as a Moral Science" 59 *American Economic Review*, June 1969.
- Buchanan, James, "Good Economics – Bad Law", *Virginia Law Review*, 1974, vol. 60, p. 483.
- Chapman, Bruce, "The Rational and the Reasonable: Social Choice Theory and Adjudication" (1994) 61 University of Chicago Law Review, p. 41.
- Coase, Ronald H., (1960) "The Problem of Social Cost", *Journal of Law & Economics*, pp. 1-44 reproduced as Chapter 5 in *The Firm, the Market, & the Law*, University of Chicago Press, 1988.
- Coase, Ronald, "Economics & Contiguous Disciplines" *Journal of Legal Studies*, 1978, VII (2), pp. 201-211.
- Cole, Daniel B., and Grossman, Peter Z., *Principles of Law and Economics*, Pearson, Prentice Hall, New Jersey, 2005
- Coleman, Jules L., *Markets, Morals and the Law*, Cambridge University Press, 1988
- Cooter, Robert & Ulen, Thomas, *Law and Economics* (4th ed.), Pearson Addison-Wesley, 2003
- Cooter, Robert & Rubenfeld, Daniel, "Economic Analysis of Legal Disputes and Their Resolution," *Journal of Economic Literature*, vol. 27, no. 3, 1989
- Dixit, Avinash, K., *Lawlessness & Economics: Alternative Modes of Governance*, Princeton University Press, 2004
- Dobbin, Frank, (ed.), *The New Economic Sociology*, Princeton University Press, 2003
- Duxbury, Neil, *Patterns of American Jurisprudence*, Clarendon Press, Oxford, 1995, p. 340.
- Ellickson, Robert, *Order Without Law: How Neighbors Settle Disputes*, Cambridge, Massachusetts, Harvard University Press, 1991
- Epstein, Richard A. (1997), "Law and Economics: Its Glorious Past and Cloudy Future", 64 *University of Chicago Law Review*, 1167-1174 at p. 1168.

- Gwartney, J., Lawson, R., Block, W., *Economic Freedom of the World: 1975-1995*, Fraser Institute, Vancouver, 1996.
- Haakonssen, Knud, *The Science of a Legislator: The Natural Jurisprudence of David Hume & Adam Smith*, Cambridge University Press, 1981.
- Hart H. L. A., *The Concept of Law*, Oxford University Press, 2nd. edition, 1997
- Hodgson, Geoffrey M. (ed.), *Recent Developments in Institutional Economics*, Edward Elgar Publishing Limited, 2003.
- Kelly, P. H. (ed.), *Locke on Money*, Clarendon Press, Oxford, 1991.
- Kelsen, Hans, *Pure Theory of Law*, The Lawbook Exchange, 2005
- Kornhauser, Lewis A., "The New Economic Analysis of Law: Legal Rules as Incentives" in Mercuro, Nicholas, *Law and Economics*, Kluwer Academic Publishers, 1989.
- Korobkin, Russell & Ulen, Thomas, "Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics", 88 *California Law Review* (2000) p. 1051
- Landes, William M. and Posner, Richard, A., "The Influence of Economics of Law: A Quantitative Study," *Journal of Law & Economics*, University of Chicago (1993) p. 385.
- Landsburg, Steven E., *The Armchair Economist: Economics & Everyday Experience*, Free Press, 1995.
- Lazear, Edward P., 2000. "Economic Imperialism," *The Quarterly Journal of Economics*, 115 (1), pp. 99-146
- Locke, John, "Several papers relating to money, interest & trade" in Kelly, P. H. (ed.), *Locke on Money*, Oxford, Clarendon Press, 1991.
- Lyotard, J., *The Post-Modern Condition: A Report on Knowledge*, Bennington, G., & Massumi, B., (trans.), University of Minnesota Press, Minneapolis, 1984
- Mercuro, Nicholas, & Medema, Steven G., *Economics and the Law: from Posner to Post-Modernism*, Princeton University Press, 1997
- Mercuro, Nicholas, & Ryan, Timothy, *Law, Economics and Public Policy*, JAI Press, 1984
- Miceli, Thomas J., *The Economic Approach to Law*, Stanford University Press, 2004
- Parisi, Francesco & Smith, Vernon L., *The Law and Economics of Irrational Behavior*, Stanford University Press, 2005.
- Polinsky, A. Mitchell, *An Introduction to Law and Economics* (3rd ed.), Aspen Publishers, 2003
- Posner, Richard A., "A Theory of Primitive Society with Special Reference to Law", *Journal of Law and Economics*, 1980
- Posner, Richard A., *The Economics of Justice*, Harvard University Press, 1981.
- Posner, Richard, A., "The Law & Economics Movement", *American Economic Review*, 77, (1987) p. 4.
- Posner, Richard A., *The Problems of Jurisprudence*, Harvard University Press, 1990
- Posner, Richard A., *The Problematics of Moral and Legal Theory*, The Belknap Press of Harvard University Press, 1999
- Posner, Richard A., *Economic Analysis of Law* (6th ed.), Aspen Publishers, 2003
- Read, William, *Legal Thinking*, University of Pennsylvania Press, 1986
- Rowley, Charles, K., "Public Choice & the Economic Analysis of Law" in Mercuro, Nicholas (ed.) *Law and Economics*, Kluwer Academic Publishers, Boston, 1989, p 125.
- Rubin, Paul H., "Why is the Common Law Efficient?" *Journal of Legal Studies* (1977), 6, p. 51
- Schokkaert, Erik, "The Economics of Distributive Justice, Welfare, and Freedom", in Klaus R. Scherer (ed.), *Justice: Interdisciplinary Perspectives*, Cambridge University Press,

1992.
- Sen, Amartya, *On Ethics & Economics*, Basil Blackwell Ltd., 1988.
- Shavell, Steven, *Foundations of Economic Analysis of Law*, The Belknap Press of Harvard University Press, 2004
- Shavell, Steven, *Economic Analysis of Law*, Foundation Press, 2004
- Simon, Herbert A., "Theories of Decision Making in Economics and Behavioral Science" in Castles, F. G., *Decisions, Organizations, and Society*, Penguin (1971) p. 36
- Smith, A., *An Inquiry into the Nature and Causes all the Wealth of Nations,* Encyclopedia Britannica, 1952
- Snow, C. P., *The two cultures and the scientific revolution, New* York, Cambridge University Press, 1959
- Stigler, George J. (1966), *The Theory of Price*, (3rd. edn.) Macmillan, New York.
- Spigelman, Honorable J. J., "Economic Rationalism and the Law", [2001] *University of New South Wales Law Journal*, 19
- Werin, Lars, *Economic Behavior & Legal Institutions*, World Scientific Publishing, 2003.
- Young, Jeffrey, T., *Economics as a Moral Science: The Political Economy of Adam Smith*, Edward Elgar Publishing, Cheltenham, UK, 1997.