

Some Uses and Abuses of Economics in Law

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The "law-and-economics" movement continues to grow, continues to be a focus of controversy, and continues—or so it seems to me—to be widely misunderstood. Perhaps, therefore, another article seeking to explain the movement is warranted.¹ In addition to serving as an introduction to (but by no means a comprehensive review of) a large and rapidly expanding scholarly literature, this article will discuss some abuses of economics in law. "Abuse," of course, is a word of at least two meanings, only one of which is "misuse." I confess to being more conscious of the abuse heaped upon the law-and-economics movement than of the occasional misuse of economics in law, but I shall give examples of both types of abuse after first discussing what seem to me to be some fruitful uses.

I. A BRIEF HISTORY OF THE ECONOMIC ANALYSIS OF LAW

The economic analysis of law has two branches, both of which date from the emergence of economics as a distinct field of scholarship in the eighteenth century. One branch, which dates back at least to Adam Smith, is the economic analysis of laws regulating explicit markets—laws regulating the "economic system" in the conventional sense. The other branch, which can be said to have

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¹ See Klevorick, *Law and Economic Theory: An Economist's View*, 65-2 AM. ECON. REV. 237 (1975); Posner, *The Economic Approach to Law*, 53 TEX. L. REV. 757 (1975).

originated with the work of Jeremy Bentham in the generation following Smith, is the economic analysis of laws regulating nonmarket behavior—accidents, crimes, marriage, pollution, and the legal and political processes themselves.

The first branch has developed in step with the maturing of economics as a science and the expansion of government regulation of the marketplace. Adam Smith remarked on conspiracies in restraint of trade; the vast expansion in antitrust activity in the last 50 years has brought into existence a highly sophisticated body of antitrust economics. A similar historical development can be traced in such fields as public utility regulation, patents and copyrights, taxation, and the regulation of corporate finance and international trade.

The other branch of the economic analysis of law—the economics of *nonmarket* legal regulation—has had a more checkered history. It began on a very high plane with the work of Bentham. Whatever one thinks of Benthamism as an ethical system or a political program, its scientific importance is considerable. Bentham was one of the earliest and, until recently, one of the only thinkers who believed that people acted as rational maximizers of their self-interest in *every* area of life. He believed, in other words, that the economic model, which on one view² is simply the working out of the implications of assuming that people are rational maximizers of their satisfactions, was applicable throughout the whole range of human activity, rather than confined to explicit markets.³ Bentham's method is exhibited at its most characteristic in his discussion of criminal punishment.⁴ Since people, he assumed, are rational maximizers in regard to the decision whether to commit a crime as well as whether to sell a horse, the problem of crime control is to establish a set of "prices" for crime by manipulating the two variables that determine the cost of punishment to the (potential) criminal: the severity of the punishment and the probability that it will be inflicted.

² See text at note 14 *infra*.

³ Bentham wrote: "NATURE has placed mankind under the governance of two sovereign masters, *pain and pleasure*. . . . They govern us in all we do, in all we say, in all we think." J. BENTHAM, A FRAGMENT ON GOVERNMENT AND AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 125 (W. Harrison ed. 1960). "Men calculate, some with less exactness, indeed, some with more: but all men calculate. I would not say, that even a madman does not calculate." *Id.* at 298.

⁴ See Bentham's *Introduction to the Principles of Morals and Legislation* in *id.* at 4. Although Bentham's economic analysis of crime was anticipated by Beccaria, Beccaria's analysis was far less systematic than Bentham's. See C. BECCARIA, AN ESSAY ON CRIMES AND PUNISHMENTS 94 (2d Am. ed. E. Ingraham ed. 1819).

Bentham's immediate successors in economics did not share his capacious view of the scope of the economic model. I do not mean that his theory of punishment was not influential; it was. But it was influential with lawyers and penologists rather than with economists, with the result that the theory itself remained undeveloped and untested until revived by Gary Becker in 1968.⁵ As is usually the case in the history of scientific thought, one can find anticipations of the current interest in the economics of nonmarket behavior: Sidgwick's discussion of externalities in 1883⁶ and Mitchell's discussion of household production in 1912⁷ are examples. But the overwhelming interest of economists was, until recently, in the operation and regulation of explicit markets, so it is not surprising that a comprehensive economics of law failed to emerge.

The publication of three essays in the economics of nonmarket behavior between 1959 and 1962 may be taken, somewhat arbitrarily to be sure, to mark the rebirth of the economic analysis of nonmarket law. These were Becker's monograph on racial discrimination,⁸ Calabresi's first article on torts,⁹ and Coase's article on social cost.¹⁰ The first two pieces showed that two forms of nonmarket conduct that had been subjected to extensive legal regulation—racial discrimination and accidents—could be analyzed fruitfully in economic terms. Coase's article, which demonstrated that the effect of property and liability rules on resource allocation depends on the costs of transacting around the rules, provided an indispensable tool for the economic analysis of legal rights and liabilities. Coase also suggested, although he did not stress, that the common-law courts had devised rules that promoted efficient resource allocation—that they had in fact displayed greater economic insight than professional economists.

There was little further work on the legal regulation of nonmarket behavior for several years. The current period of sustained and rapidly expanding scholarly activity can be dated—again rather arbitrarily—from the publication in 1968 of Becker's paper on the

⁵ See text and note at note 11 *infra*.

⁶ See H. SIDGWICK, *THE PRINCIPLES OF POLITICAL ECONOMY* 406-08 (3d ed. 1901).

⁷ Mitchell, *The Backward Art of Spending Money*, 2 *AM. ECON. REV.* 269 (1912), reprinted in W. MITCHELL, *THE BACKWARD ART OF SPENDING MONEY, AND OTHER ESSAYS* at 3 (1950).

⁸ G. BECKER, *THE ECONOMICS OF DISCRIMINATION* (1959).

⁹ Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 *YALE L.J.* 499 (1961).

¹⁰ Coase, *The Problem of Social Cost*, 3 *J.L. & ECON.* 1 (1960).

economics of crime and punishment.¹¹ Since then, studies have appeared applying economics to civil and criminal procedure, deterrence, judicial administration, law enforcement, legal precedent, tort and contract law, freedom of speech, family law, maritime law, commercial law, arbitration, remedies, and other areas that have traditionally (although somewhat surprisingly, in the case of contract and commercial law) been treated as areas of nonmarket regulation.¹² At the same time, the economic analysis of the legal regulation of explicit markets—in energy, in inventions, in the cable-television industry, in ocean resources, and in other areas too numerous to mention—has continued to develop and expand. Economic analysis of the political (including regulatory) process itself has also made great strides in this period.¹³

The economic analysis of nonmarket legal regulation can be viewed as part of the larger movement in economics towards application of the economic model to an ever greater range of human behavior and social institutions—to information, marriage, education, and many other phenomena that lie outside of the “economic system” as it is conventionally defined. This movement, which involves a redefinition of economics from the study of the economic system to the study of rational choice, is controversial, and some of the controversy is directly relevant to the question of the economic approach to law. I shall eschew this larger controversy,¹⁴ however, and confine my attention to the special problems of the economics of law.

II. POSITIVE AND NORMATIVE ECONOMIC ANALYSIS OF LAW

The field of law and economics is too large to be surveyed ade-

¹¹ Becker, *Crime and Punishment: An Economic Approach*, 76 J. POLITICAL ECON. 169 (1968).

¹² See, for example, the authorities cited in notes 33-41 *infra*.

¹³ For a brief overview of the law-and-economics field, see R. POSNER, *ECONOMIC ANALYSIS OF LAW* 15-23 (2d ed. 1977) [hereinafter cited without cross-reference as *ECONOMIC ANALYSIS OF LAW*]; Posner, *supra* note 1. For an early effort to discuss a range of legal problems in mainly economic perspectives, see G. TULLOCK, *THE LOGIC OF THE LAW* (1971). The second edition of *Economic Analysis of Law* conveys a sense of the current scope of the field—although after only two years the book is somewhat out of date. See, e.g., Goetz & Scott, *Liquidated Damages, Penalties and the Just Compensation Principle*, in *THE ECONOMICS OF CONTRACT LAW* at 194 (A. Kronman & R. Posner eds. 1978); Kronman, *Mistake, Disclosure, Information, and the Law of Contracts*, in *id.* at 114; Priest, *Breach and Remedy for the Tender of Nonconforming Goods*, in *id.* at 167; authorities cited in notes 34-38, 40-41 & 57 *infra*.

¹⁴ On which compare G. BECKER, *THE ECONOMIC APPROACH TO HUMAN BEHAVIOR* (1976) (especially the Introduction), with Coase, *Economics and Contiguous Disciplines*, 7 J. LEGAL STUD. 201 (1978).

quately in a short article, but a few distinctions may help orient the reader. One that I have already touched on is the distinction between the analysis of laws regulating explicit markets and those that regulate nonmarket behavior. Another important distinction is between normative and positive economic analysis of law—between the use of economic analysis to argue for what should be and the use of economic analysis to explain what is or has been or to predict what will be. This distinction is illustrated by the contrast between Guido Calabresi's work on tort law and my own. Professor Calabresi's work has been mainly normative, especially in his book *The Costs of Accidents*¹⁵ and the articles leading up to it.¹⁶ He wants to show how society can better control accidents by adopting a structure of rules and institutions based primarily on economics. A reformer in the Bentham tradition, Calabresi is highly critical of the existing system of accident liability—the tort system—because he regards it as an obstacle to the adoption of his version of optimal accident regulation. My approach to torts is different. I have been interested primarily in discovering to what extent the tort system supports the hypothesis that common-law rules and institutions tend to promote economic efficiency. My 1972 article *A Theory of Negligence*¹⁷ attempted to test that hypothesis by a detailed examination of tort decisions in the period 1875-1905; subsequent work has elaborated on that study.¹⁸ My interest in the tort system is, in short, positive and Calabresi's normative.

The distinction between positive and normative, between explaining the world as it is and trying to change it to make it better, is basic to understanding the law-and-economics movement. Yet it is a distinction lawyers have difficulty getting straight because they are inveterately normative, and it is a common source of confusion because many of the criticisms that are properly leveled at normative economic analysis are inapplicable to positive economic analysis. For example, that it may be hard to show that "efficient" is a synonym for "good" does not bear, at least directly, on the question whether the hypothesis that the common law is efficiency-promoting is supported by the evidence.

A different, but related, distinction in law and economics is between the study of regulated and of regulating behavior. The economist can study an activity regulated by the legal system or he

¹⁵ G. CALABRESI, *THE COSTS OF ACCIDENTS* (1970).

¹⁶ See *id.* at 5 n.4.

¹⁷ See Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29 (1972).

¹⁸ See ECONOMIC ANALYSIS OF LAW 119-61; authorities cited in note 40 *infra*.

can study the regulatory activity of the system. An example of the first is the study of the incidence of crime as a function of the certainty or severity of criminal punishment; an example of the second is the study of the structure of criminal penalties. Studies of regulated behavior, although often strictly positive in content and purpose, have an important role in the formulation of policy and thus contribute to the normative economic analysis of law. For example, economic studies of the deterrent effect of criminal sanctions¹⁹ are plainly relevant to the question how severe criminal sanctions should be. Similarly, recent theoretical and empirical studies suggesting that competition among states for incorporations will *not* result in corporation codes that unduly favor shareholder over creditor interests or majority over minority shareholders²⁰ have an inescapable relevance to the movement for a federal corporation code.²¹ In the economics of legal regulation of explicit markets, the normative use of positive analysis is also common. Much of the research in antitrust economics, for example, consists of demonstrating a nonmonopolistic reason for some challenged business practice. The implication of such research, whether or not the researcher notes it, is that the practice should not be forbidden.

The use of economics to support legal policy recommendations may seem to raise inescapably the issue of the adequacy of economics as a normative system, but it does not.²² The economist who demonstrates that criminals respond to incentives and hence commit fewer crimes when penalties are made more severe is not engaged in normative analysis. His demonstration has normative significance only insofar as the people who think normatively about criminal punishment consider its behavioral effects relevant to the

¹⁹ See note 82 *infra*.

²⁰ See ECONOMIC ANALYSIS OF LAW 306-07; Winter, *State Law, Shareholder Protection, and the Theory of the Corporation*, 6 J. LEGAL STUD. 251 (1977); P. Dodd & R. Leftwich, *The Market for Corporate Charters: "Unhealthy Competition" vs. Federal Regulation* (Oct., 1978) (Working Paper Series No. MERC 78-06, U. Rochester, Grad. Sch. Management, on file with *The University of Chicago Law Review*).

²¹ There are, of course, many other examples of policy-oriented legal-economic studies. Recently, John Langbein and I have used the findings of modern financial theory to suggest a reinterpretation of trust investment law that would permit trustees to invest in index or market mutual funds, Langbein & Posner, *Market Funds and Trust-Investment Law: II*, 1976 AM. B. FOUNDATION RESEARCH J. 1; Elizabeth Landes and I have proposed that an efficient response to the black market in babies for adoption would be to permit the sale of babies by natural to adoptive parents, E. Landes & Posner, *The Economics of the Baby Shortage*, 7 J. LEGAL STUD. 323 (1978). Some other recent policy recommendations founded on economic analysis are discussed in Michelman, *Norms and Normativity in the Economic Theory of Law*, 62 MINN. L. REV. 1015, 1028-29 (1978).

²² For a fuller discussion of this point, see Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103, 109-10 (1979).

design of a just punishment system. In measuring economic costs and benefits, the economist *qua* economist is not engaged in the separate task of telling policymakers how much weight to assign to economic factors.

I do not mean that this separate task is uninteresting or unimportant, but only that it is not a part of economics as such. In a recent paper I pointed out some advantages that I believe the efficiency criterion has over competing normative criteria, including the greatest-happiness principle of classical utilitarianism.²³ But such a demonstration is not essential to the ordinary normative uses to which economic analysis is put. So long as it is accepted that the economist can measure costs and that costs are relevant to policy, economics has an important role to play in debates over legal reform.

III. THE POSITIVE ECONOMIC THEORY OF THE COMMON LAW

A

I am personally less interested in normative economic analysis of law in any form than in positive economic analysis of law. "Positive analysis" refers, as I have suggested, to the attempt to understand and explain, rather than improve, the world. Explanation is the domain of science, and economics is the science of rational human behavior. It should be possible to study behavior regulated by the legal system and even the behavior of the system itself through the methods of economics viewed as a science rather than as an ideology or ethical system.²⁴

Some commentators, however, continue to deny the possibility of social science. Among them are academic lawyers such as Grant Gilmore and Arthur Leff. Professor Gilmore wrote recently:

For two hundred years we have been in thrall to the eighteenth-century hypothesis that there are, in social behavior and in societal development, patterns which recur in the same way that they appear to recur in the physical universe.

. . . [T]he hypothesis is itself in error. Man's fate will forever elude the attempts of his intellect to understand it. The accidental variables which hedge us about effectively screen the future from our view. The quest for the laws which will

²³ See *id.* at 119-36.

²⁴ In this connection I take note of a recent book by a philosopher of science who concludes that economics is a genuine science in the same sense as physics and other natural sciences. See A. ROSENBERG, *MICROECONOMIC LAW: A PHILOSOPHICAL ANALYSIS* (1976).

explain the riddle of human behavior lead us not toward truth but toward the illusion of certainty, which is our curse. So far as we have been able to learn, there are no recurrent patterns in the course of human event; it is not possible to make scientific statements about history, sociology, economics—or law.²⁵

The strategy of Gilmore and Leff is a curious one. Instead of analyzing the positive economic analysis of law on its merits—examining its theoretical consistency, its ability to explain data, and so forth—they address, necessarily in very general terms, the much larger question whether it is possible to treat *any* branch of human behavior in a scientific fashion. A concrete demonstration of where and how the positive economic analysis of law fails would be more persuasive than the attempt of Gilmore and Leff to dismiss the whole of social science.

The positive economic analysis of law has, as I mentioned earlier, two facets. One, the study of behavior regulated by the legal system, is illustrated by William Landes's pioneering study of the courts.²⁶ Landes examined how parties to litigation respond to the constraints that the litigation process imposes on them, as distinguished from examining the economic basis of the litigation rules and procedures themselves. Studies of behavior regulated by the legal system generally take for granted the system itself—the structure of penalties, the rules of procedure, and so on—and ask how the individuals caught up in the system respond to the constraints that it places on their behavior. A separate branch of the positive economic analysis of law, in which I have been particularly interested, seeks to explain not the behavior of the individuals and firms regulated by the legal system but the structure of the system itself.

Scholars engaged in this branch of the positive economic analysis of law have advanced the hypothesis that the rules, procedures, and institutions of the common or judge-made law—in sharp contrast to much legislative and constitutional rulemaking—promote efficiency.²⁷ The hypothesis is not that the common law does or could perfectly duplicate the results of competitive markets;²⁸ it is that, within the limits of administrative feasibility, the law brings

²⁵ G. GILMORE, *THE AGES OF AMERICAN LAW* 99-100 (1977), quoted in Leff, *Law and*, 87 *YALE L.J.* 989, 1010 (1978) (footnote omitted).

²⁶ Landes, *An Economic Analysis of the Courts*, 14 *J.L. & ECON.* 61 (1971).

²⁷ For a succinct statement of the hypothesis by an interested though skeptical observer see Michelman, *Political Markets and Community Self-Determination: Competing Judicial Models of Local Government Legitimacy*, 53 *IND. L.J.* 145, 145-46, 201-06 (1977-78).

²⁸ See *ECONOMIC ANALYSIS OF LAW* 402-03; Diamond & Maskin, *An Equilibrium Analysis of Search and Breach of Contract, I: Steady States*, 10 *BELL J. ECON.* 282 (1979).

the economic system closer to producing the results that effective competition—a free market operating without significant externality, monopoly, or information problems—would produce.

The efficiency hypothesis in its original form was largely descriptive or empirical: little effort was devoted to explaining why, and through what mechanism, the law might have become an instrument for promoting efficiency. Demsetz's early discussion of the emergence of individual property rights in primitive legal systems under the pressure of increasing resource scarcity illustrates the sort of explanation that seemed adequate at the time:

I do not mean to assert or to deny that the adjustments in property rights which take place need be the result of a conscious endeavor to cope with new externality problems. These adjustments have arisen in Western societies largely as a result of gradual changes in social mores and in common law precedents. At each step of this adjustment process, it is unlikely that externalities per se were consciously related to the issue being resolved. These legal and moral experiments may be hit-and-miss procedures to some extent *but in a society that weights the achievement of efficiency heavily, their viability in the long run will depend on how well they modify behavior to accommodate to the externalities associated with important changes in technology or market values.*²⁹

The leap from assuming efficiency-maximizing behavior of individuals to assuming efficiency-maximizing behavior of a society seems, in retrospect, too hastily made in this passage, especially in light of growing evidence that government is frequently involved in redistributive activities that actually reduce efficiency.³⁰ Disquiet over this point has prompted efforts, not as yet wholly convincing, to show that the *form* of common-law adjudication may predispose it to efficient outcomes quite apart from any social consensus in favor of efficiency that the judges could be expected to share.³¹

That we do not yet have a generally accepted theory of why and how the common law might have come to be an instrument for

²⁹ Demsetz, *Toward a Theory of Property Rights*, 57-2 AM. ECON. REV. 347, 350 (1967) (emphasis added).

³⁰ See ECONOMIC ANALYSIS OF LAW 404-07.

³¹ See *id.* at 404-405; Goodman, *An Economic Theory of the Evolution of the Common Law*, 7 J. LEGAL STUD. 393 (1978); Priest, *The Common Law Process and the Selection of Efficient Rules*, 6 *id.* at 65 (1977); Rubin, *Why Is the Common Law Efficient?*, 6 *id.* at 51 (1977). For criticism see ECONOMIC ANALYSIS OF LAW 439-41; Cooter & Kornhauser, *Can Litigation Improve the Law Without the Help of Judges*, J. LEGAL STUD. (forthcoming); Landes & Posner, *Adjudication as a Private Good*, 8 J. LEGAL STUD. 235, 259-84 (1979).

promoting economic efficiency does not, of course, warrant disregarding the numerous studies that have found a convergence, frequently subtle and unexpected, between the common-law rules and the implications of economic theory. These studies are not limited to the occasional instances where the courts adopt a virtually explicit economic formulation of the law, as in the Hand formula of negligence liability.³² They embrace a variety of doctrines in fields as diverse as admiralty, contracts, arbitration, remedies, torts—indeed in every one of the common-law fields. Assumption of risk,³³ the rules for computing salvage awards in admiralty,³⁴ the exceptions to the nonenforceability of gratuitous promises,³⁵ the distinction between fraud and unilateral mistake,³⁶ the rules governing commercial arbitration,³⁷ the degrees of homicide,³⁸ the defense of impossibility in contract actions,³⁹ the limited scope of the right to privacy,⁴⁰ and the appropriation system of water rights,⁴¹ are a few examples of specific doctrines and practices that have been explained on efficiency grounds.

It is of course possible to quarrel with some of the economic explanations of common-law rules that have been offered. The Clarkson-Miller-Muris explanation for the refusal of the common law to enforce penalty clauses in contracts is a particularly vulnerable example.⁴² That refusal, which apparently promotes inefficiency,⁴³ remains a major unexplained puzzle in the economic theory of the common law, and there are others. Nevertheless, it is striking,

³² See *United States v. Carroll Towing Co.*, 159 F.2d 169 (2d Cir. 1947); *Conway v. O'Brien*, 11 F.2d 611 (2d Cir. 1940). See also *ECONOMIC ANALYSIS OF LAW* 122-24.

³³ See *ECONOMIC ANALYSIS OF LAW* 127-28.

³⁴ See Landes & Posner, *Salvors, Finders, Good Samaritans, and Other Rescuers: An Economic Study of Law and Altruism*, 7 J. LEGAL STUD. 83, 100-05 (1978); cf. *id.* at 106-08 (the rule of general average in admiralty).

³⁵ See Posner, *Gratuitous Promises in Economics and Law*, 6 J. LEGAL STUD. 411 (1977); cf. Landes & Posner, *supra* note 34, at 109-10 (1978) (physician's entitlement to his fee from an unconscious person whom he treats without a contract).

³⁶ See Kronman, *supra* note 13.

³⁷ See Landes & Posner, *supra* note 31, at 245-53.

³⁸ See *ECONOMIC ANALYSIS OF LAW* 174.

³⁹ See Posner & Rosenfield, *Impossibility and Related Doctrines in Contract Law: An Economic Analysis*, 6 J. LEGAL STUD. 83 (1977).

⁴⁰ See Posner, *The Right of Privacy*, 12 GA. L. REV. 393 (1978); cf. Posner, *Privacy, Secrecy, and Reputation*, 28 BUFF. L. REV. 1, 40 (1979) (conditional privilege in a defamation suit against a former employer who gives a character reference for an employee).

⁴¹ See, e.g., Burness & Quirk, *Appropriative Water Rights and the Efficient Allocation of Resources*, 69-1 AM. ECON. REV. 25 (1979).

⁴² See Clarkson, Miller & Muris, *Liquidated Damages v. Penalties: Sense or Nonsense?*, 1978 WIS. L. REV. 351.

⁴³ See *ECONOMIC ANALYSIS OF LAW* 93-94; *THE ECONOMICS OF CONTRACT LAW*, *supra* note 13, at 224-25.

at least to this perhaps biased observer, how wide a range of rules, outcomes, procedures, and institutions appear to support the efficiency hypothesis.

B

The existing evidence for the efficiency hypothesis is not of such power as to invite complacency, however. As we have seen and shall see, the economic theory of the common law has encountered some serious problems. But these problems do *not* include the alleged inadequacy of "efficiency" (which I use in the sense of wealth maximization) as a *normative* criterion. The positive theory says only that the common law appears to be an engine of wealth maximization, not that it should be one. But since several recent writers have questioned this attempt to divorce "is" and "ought," the issue deserves attention here.

Dworkin⁴⁴ and Kennedy⁴⁵ have argued that since efficiency is a function of the initial distribution of rights, the economic theory of law cannot be validated without some theory of the initial distribution, a theory these writers assume economics cannot provide. But their argument is, I believe, incorrect. If one starts with a system in which a single man owns all of the wealth in the society, the allocation of resources that is efficient in the light of that distribution will probably be different from what it would be if one had started with a more equal distribution; nevertheless, both allocations are efficient. Thus, if the common law simply takes for granted the existing distribution of wealth and assigns rights and duties in such a way as to optimize resource use given that distribution, the resulting allocation of resources will be efficient. Moreover, as I have argued elsewhere, the economic theory of law *does* prescribe an initial distribution of rights, at least in a general way (for example, each person to own his own body and labor).⁴⁶

Michelman has made a different argument: that unless wealth maximization can be shown to be an acceptable ethical theory, it is implausible to attribute its adoption to the common-law judges.⁴⁷

⁴⁴ R. DWORKIN, *TAKING RIGHTS SERIOUSLY* 97-98 (1977).

⁴⁵ Kennedy, *Form and Substance in Private Law Adjudication*, 89 HARV. L. REV. 1685, 1762-64 (1976).

⁴⁶ See Posner, *supra* note 22, at 125-26.

⁴⁷ See F. Michelman, *Norms and Normativity in the Positive Economic Theory of Law* (n.d.) (unpublished manuscript on file with *The University of Chicago Law Review*). This argument does not appear in the published version of the paper, cited in note 21 *supra*—owing, however, to a change in the scope of the paper rather than to a change of mind on Michelman's part.

Two responses are possible. The first is that efficiency is a more defensible ethical criterion than Michelman would admit, *especially in the context of judicial decisionmaking*. Considerations of the just distribution of wealth or other "justice" factors on which a social consensus is lacking would introduce an unacceptable degree of subjectivity and uncertainty into the judicial process. Another way of stating this point is that efficiency has always been an important social value, and it may be the *only* value that a system of common-law rulemaking can effectively promote.⁴⁸ Second, the recent work on the sources of the efficiency bias in common-law adjudication suggests that one need not posit a preference for efficiency on the part of the judges to explain how the common-law system might generate efficient rules. The more extreme versions of this view even argue that the common law would tend to become efficient in the face of judicial hostility to efficiency as the ruling criterion of judicial decisions.⁴⁹ This view, however, is not yet widely accepted.⁵⁰

Among other objections to the efficiency theory of the common law that have been advanced are, first, the prevalence of noneconomic rhetoric in judicial decisions, and, second, the poor quality of much of the evidence—statistical data of the sort usually used to verify social scientific theories appear to be largely lacking with regard to the efficiency properties of common-law rules. The point about rhetoric ignores the fact that the major economizing doctrines of the common law preceded the development of an explicit economic theory of law that might have made the specialized rhetoric of economics available for use in judicial decisions. Just as people were maximizing utility before the terms were invented by economists, judges may have been maximizing efficiency before the language of economics gained currency in judicial opinions (indeed, it still has not). Even modern businessmen, educated at business schools in which heavy doses of economics are taught, tend not to use the jargon of economics in their business dealings. Yet this fact is not generally considered an effective refutation of the applicability to business behavior of such basic economic concepts as profit maximization and marginal cost.

The anomalies I mentioned earlier and the lack of quantitative evidence are weaknesses in the efficiency theory of the common law

⁴⁸ See ECONOMIC ANALYSIS OF LAW 359 (arguing that courts lack effective tools of income redistribution).

⁴⁹ This is Professor Priest's view. See Priest, *supra* note 31.

⁵⁰ See note 31 *supra*.

that cannot be brushed aside so easily. To be sure, with research still in an early stage, the frequency and stubbornness—the significance, in short—of the anomalies that have appeared cannot yet be fully appraised. Yet it would be more surprising to find that the common law had somehow remained totally immune from the redistributive impulses that appear to dominate the other branches of government today than it would be to find a mixture of redistributive and efficiency elements in the common-law doctrines and outcomes, though perhaps with efficiency predominant. This raises the question of the proper formulation of the positive economic theory of the common law, a question to which I return below.

As for the paucity of quantitative testing of the efficiency hypothesis, although it is surely to be regretted (it is due mainly to the surprising, but remediable, dearth of statistics on most aspects of the legal system⁵¹), qualitative evidence ought not be rejected out of hand. Indeed, the distinction between qualitative and quantitative evidence is not always clear-cut. For example, Demsetz's study of the emergence of individual property rights in primitive society to which I referred can be viewed as a form of quantitative analysis in which the researcher predicts that a change in the costs and benefits of alternative rights systems will result in a corresponding, and efficient, change in the nature of the rights system. Similarly, Landes and I recently tried to test the economic rationality of rescue law by predicting differences between land and sea rescue law based on differences in the economics of rescue on land and on sea.⁵²

Notwithstanding the above apologetics, the theory is young and fragile and its results tentative rather than definitive. Further work should dispel some of the anomalies, but it may well reveal new ones. One possible outcome may be the development of a more inclusive theory of the common law that will include wealth maximization either as a special case, in the same way that Galileo's law of falling bodies was shown by Newton to be a special case of a general theory of gravitation, or as one explanatory variable among several linked in a more complex model. Indeed, as suggested above, it seems likely that the mature form of the positive economic theory

⁵¹ William Landes and I used a combination of federal-court statistics published by the Administrative Office of the U.S. Courts and citation statistics that we ourselves compiled from judicial opinions to test hypotheses regarding the use of precedent in the federal courts. See Landes & Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249 (1976). We have almost completed a statistical study of salvage awards by U.S. and English admiralty courts, again based on statistics that we compiled, this time from published summaries of the judicial opinions in salvage cases.

⁵² Landes & Posner, *supra* note 34, at 118-19.

of the common law will predict at least occasional instances where redistributive rather than efficiency concerns have shaped legal doctrines, especially in a period like the present when redistributive elements are so conspicuous in the shaping of legislative, executive, and administrative policymaking. This would still be an economic theory of the common law, for it would assume that the common-law doctrines were designed to maximize the wealth of some group, but its focus would sometimes be on a group smaller than the society as a whole. Conversely, some legislation is certainly efficiency-enhancing rather than redistributive in its basic thrust (for example, statutes of limitations, statutes punishing common-law crimes such as murder and theft, and statutes providing for damages in wrongful-death cases), and such legislation must be integrated into the economic theory of law.

Even in a quite extreme form—a prediction that *all* common law doctrines will eventually be shown to be based on efficiency considerations—the positive economic theory has the cardinal virtue of being the only positive theory of the common law that is in contention at this time.⁵³ Occasional suggestions are made of alternative positive theories of the common law, but they are so perfunctory as to be, at the present time, quite unpromising.⁵⁴ That is not to say that any version of the efficiency theory must be accepted merely because there are no competing theories. If the theory had very little empirical support, one could take the position that there is no positive theory of the common law worth paying attention to. But despite our inability to explain in an entirely convincing way why the common law should be efficient, and the incomplete and equivocal character of the data that support the theory, at least one can say that the theory deserves to be taken seriously, especially in its more moderate form of a claim that efficiency has been the predominant, not sole, factor in shaping the common-law system.

Without meaning to wrap myself in the prestige of the physical sciences, I note a resemblance between my view of the present state of the positive economic theory of the common law and the view recently expressed by a distinguished physicist of the so-called “standard model” of the early universe:

⁵³ The extreme form provides a useful working hypothesis. One can fruitfully begin an analysis of a common-law doctrine by looking for an efficiency rationale; one cannot, however, always be assured of finding such a rationale.

⁵⁴ See, for example, Greenawalt's criticism of Dworkin's effort to sketch a “rights-based” positive theory of law. Greenawalt, *Policy, Rights, and Judicial Decision*, 11 *GA. L. REV.* 991, 1010-15 (1977).

In following this account of the first three minutes, the reader may feel that he can detect a note of scientific overconfidence. He might be right. However, I do not believe that scientific progress is always best advanced by keeping an altogether open mind. It is often necessary to forget one's doubts and to follow the consequences of one's assumptions wherever they may lead—the great thing is not to be free of theoretical prejudices, but to have the right theoretical prejudices. And always, the test of any theoretical preconception is where it leads. The standard model of the early universe has scored some successes, and it provides a coherent theoretical framework for future experimental programs. This does not mean that it is true, but it does mean that it deserves to be taken seriously.⁵⁵

Astronomy resembles economics in that it provides little scope for controlled experimentation. That is one reason for the tentativeness of Professor Weinberg's endorsement of the standard model. The proper posture toward the efficiency hypothesis of the common law is one of greater tentativeness, yet it too "has scored some successes" and "provides a coherent theoretical framework for future" research.

I do not wish to leave too one-sided an impression of the research activity in the law-and-economics field. Exploring the efficiency hypothesis is only one facet of that activity. One can study the law from the standpoint of positive economics without employing the hypothesis. And one can study it from the standpoint of normative economics as well, as Calabresi's important work illustrates. My point is not that positive economic analysis, and in particular the efficiency hypothesis, is the only valid application of economics to the law, but, to repeat, that it is a mode of analysis that must be taken seriously by anyone interested in understanding our still largely judge-made legal system.

C

What lies ahead in law and economics, and, in particular, in the positive economic analysis of law? I propose to address this question by considering the changes in the law-and-economics field since my last general article on the subject, written four years ago.⁵⁶ My assumption is that recent trends provide the best, although not neces-

⁵⁵ S. WEINBERG, *THE FIRST THREE MINUTES: A MODERN VIEW OF THE ORIGIN OF THE UNIVERSE* 119 (1977).

⁵⁶ See note 1 *supra*.

sarily a good, predictor of the future. As throughout this article, I will focus on the economics of nonmarket legal regulation.

In 1975 the literature of the positive economic theory of law was very small relative to the normative literature. My impression (I have made no count) is that positive analysis is growing in relative importance, and I expect this trend to continue. Lawyers are, as I mentioned earlier, inveterately normative, and economists are not far behind them in wanting to preach reform. But there seems to be a growing belief—it is in part an aspect of the general growth of interest in legal theory at the major law schools—that the scientific study of law is both an interesting and a feasible pursuit. Not all positive economic analysis of law has focused or will focus on the efficiency hypothesis of the common law, but this hypothesis has been a major stimulus to research and will undoubtedly continue to be explored and refined in the coming years.

Also of note has been the broadening in the subject-matter interests of the law-and-economics scholars. Four years ago the literature on the legal regulation of nonmarket activities was concentrated largely in the torts field. Recently there has been a surge of work on the economics of contract and commercial law.⁵⁷ Yet, despite the fundamental role that the concept of property rights plays in the discussion of the economics of law, the doctrines of property law have received relatively little attention from the law-and-economics scholars. I expect that this neglect will be remedied just as the former neglect of contracts was. I also expect to see more work in procedure, remedies, substantive criminal law, family law, intellectual property, and other fields that have been rather neglected in favor of tort and now contract law.

Another important trend has been toward greater rigor in the economic writings on law.⁵⁸ It is the concern with rigor that lies behind the recent explosion of papers dealing with the mechanism by which efficient common-law rules and outcomes are achieved.⁵⁹ There is growing dissatisfaction with attempts to answer the ques-

⁵⁷ Many of the selections in *The Economics of Contract Law*, *supra* note 13, were published in the last four years, and several other papers on the economics of contract law have appeared since. See Diamond & Maskin, *supra* note 28; Goetz & Scott, *Measuring Sellers' Damages: The Lost-Profits Puzzle*, 31 STAN. L. REV. 325 (1979); Jackson, "Anticipatory Repudiation" and the Temporal Element of Contract Law: An Economic Inquiry Into Contract Damages in Cases of Prospective Nonperformance, 31 STAN. L. REV. 69 (1978); S. Shavell, Breach of Contract, Damage Measures, and Resource Allocation (Dec., 1978) (unpublished manuscript on file with *The University of Chicago Law Review*).

⁵⁸ See, e.g., Polinsky, *Controlling Externalities and Protecting Entitlements: Property Right, Liability Rule, and Tax-Subsidy Approaches*, 8 J. LEGAL STUD. 1 (1979).

⁵⁹ See authorities cited in note 31 *supra*.

tion why the common law is efficient with vague references to nineteenth-century ideology. I expect the development of an economic theory of judicial motivation and behavior to occupy a prominent place in the future work of law-and-economics scholars. In this endeavor, scholars will no doubt draw heavily on the growing literature on the economics of the political process.⁶⁰

The apparently restless probing of the law-and-economics scholars to bring ever more of the legal system within their purview—precedent and other aspects of the judicial decisionmaking process itself, privacy, adoption, and even primitive law⁶¹—is a source of disquiet to many. Why do these scholars, it is sometimes asked, court ridicule by refusing to recognize *any* limitations on the appropriate domain of the economic analysis of law? The answer is that the limitations of economics cannot be determined a priori, but only by the efforts of scholars to apply economics to hitherto unexplored areas of the legal system. One can reach the outer bounds of a discipline only by pushing outwards. Eventually a point will be reached where the economic theory ceases to have substantial explanatory power. Then we will know the limitations of the economic analysis of law; we do not know them yet.

IV. THE ABUSE OF ECONOMICS IN LAW

Having given an introduction to the history and progress of the use of economics in legal reasoning and elaborated one particular aspect of its use—the positive economic analysis of the common law—I will offer two distinct instances of “abuse.” One is Judge Sneed’s opinion in *Union Oil Co. v. Oppen*,⁶² a good example of the adage, “a little learning is a dangerous thing,” applied to economics. The other is Professor Bloustein’s abuse (in the sense of heaping abuse, not misuse) of the economic model of human behavior in his recent paper commenting on my economic analysis of privacy.⁶³ The discussion of these two abuses should serve to clarify and illustrate some of the points made in earlier parts of this article.

⁶⁰ See, e.g., Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & Econ. 211 (1976).

⁶¹ See R. Posner, *A Theory of Primitive Society, with Special Reference to Law* (Working Paper 007, Center for the Study of the Economy and the State, The University of Chicago, March, 1979, copy on file with *The University of Chicago Law Review*).

⁶² 501 F.2d 558 (9th Cir. 1974).

⁶³ Bloustein, *Privacy is Dear at Any Price: A Response to Professor Posner’s Economic Theory*, 12 Ga. L. Rev. 429 (1978).

A

Oppen concerned a suit by commercial fishermen whose livelihood was impaired as a result of the Santa Barbara oil spill in 1969. The defendants were oil companies that had joined together to drill oil in the Santa Barbara Channel and whose joint venture had caused the spill. It was stipulated that the spill and resulting damage to the plaintiffs' livelihood were the consequence of the defendants' negligence. The only issue was whether an injury to a business expectancy as distinct from a vested property right was compensable under the applicable tort law. The Ninth Circuit, in an opinion by Judge Sneed, held that it was compensable. He bolstered this conclusion by reference to Professor Calabresi's book on the costs of accidents.⁶⁴ The court's discussion, set forth in the margin,⁶⁵

⁶⁴ See note 15 *supra*.

⁶⁵ Recently a number of scholars have suggested that liability for losses occasioned by torts should be apportioned in a manner that will best contribute to the achievement of an optimum allocation of resources. See, e.g., Calabresi, *The Costs of Accidents* 69-73 (1970) (hereinafter Calabresi); Coase, *The Problem of Social Cost*, 3 J. Law & Econ. 1 (1960). This optimum, in theory, would be that which would be achieved by a perfect market system. In determining whether the cost of an accident should be borne by the injured party or be shifted, in whole or in part, this approach requires the court to fix the identity of the party who can avoid the costs most cheaply. Once fixed, this determination then controls liability.

It turns out, however, that fixing the identity of the best or cheapest cost-avoider is more difficult than might be imagined. In order to facilitate this determination Calabresi suggests several helpful guidelines. The first of these would require a rough calculation designed to exclude as potential cost-avoiders those groups/activities which could avoid accident costs only at an extremely high expense. Calabresi at 140-43. While not easy to apply in any concrete sense, this guideline does suggest that the imposition of oil spill costs directly upon such groups as the consumers of staple groceries is not a sensible solution. Under this guideline, potential liability becomes resolved into a choice between, on an ultimate level, the consumers of fish and those of products derived from the defendants' total operations.

To refine this choice, Calabresi goes on to provide additional guidelines which, in this instance, have proven none too helpful. For example, he suggests an evaluation of the administrative costs which each party would be forced to bear in order to avoid the accident costs. Calabresi at 143-44. He also states that an attempt should be made to avoid an allocation which will impose some costs on these groups or activities which neither consume fish nor utilize those products of the defendants derived from their operations in the Santa Barbara Channel. Calabresi at 144-50. On the record before us, we have no way of evaluating the relative administrative costs involved. However, we do recognize that it is probable that by imposing liability on the defendants some portion of the accident costs in this case may be borne by those who neither eat fish nor use the petroleum products derived from the defendants' operations in Santa Barbara.

Calabresi's final guideline, however, unmistakably points to the defendants as the best cost-avoider. Under this guideline, the loss should be allocated to that party who can best correct any error in allocation, if such there be, by acquiring the activity to which the party has been made liable. Calabresi at 150-52. The capacity "to buy out" the plaintiffs if the burden is too great is, in essence, the real focus of Calabresi's

evinces a misunderstanding of the applicable economics.

Judge Sneed begins by noting that the economic approach requires the court to identify "the party who can avoid the costs more cheaply."⁶⁶ But he shies away from applying this criterion, on the ground that "fixing the identity of the best or cheapest cost-avoider is more difficult than might be imagined."⁶⁷ This is a curious observation in the setting of the case. The court interpreted the defendants' stipulation as a confession of their negligence, which means, at least as an approximation, that they had not thought it worth trying to show that they were not, in Calabresi's terms, the cheapest cost-avoiders. Why then should Judge Sneed have wondered whether the defendants could more cheaply have avoided the harm caused by the Santa Barbara oil spill, especially in the absence of any allegation that the plaintiffs had been contributorily negligent? In any event, it seems obvious that the fishermen were in no position (by breeding a species of oil-resistant fish, or otherwise) to avoid the damage; the oil companies were the cheaper cost-avoiders in Calabresi's sense.

What follows in the opinion—an attempt to apply Calabresi's detailed guidelines designed for cases in which the identity of the cheaper cost-avoider is in serious doubt—is thus superfluous. It is also confused. This part of the opinion begins with the suggestion that "the imposition of oil spill costs directly upon such groups as the consumers of staple groceries is not a sensible solution."⁶⁸ I assume that by "staple groceries" Judge Sneed has in mind a product in which neither fish nor oil is a significant input. The relevance of such an example is obscure, since there is no tort mechanism by which the manufacturers, sellers, or consumers of staple groceries could be made to bear the costs of the Santa Barbara oil spill. Continuing with his discussion of Calabresi's detailed guidelines, Judge Sneed next states that an effort should be made to "avoid an allocation which will impose some costs on those groups or activities which neither consume fish nor utilize those products of the defendants derived from their operations in the Santa Barbara Channel."⁶⁹ We are back to the staple groceries, an example of an activity unrelated to the accident. Judge Sneed then states that it is probable that imposing liability on the defendants will result, at least

approach. On this basis there is no contest—the defendants' capacity is superior.
501 F.2d at 569-70.

⁶⁶ *Id.* at 569.

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.* at 569-70.

partially, in just such an externalization. It is not clear why this should be so, and he gives no reasons for his conclusion.

Having wandered among Calabresian guidelines that he does not find particularly helpful, Judge Sneed finally lights on a helpful one: "[T]he loss should be allocated to that party who can best correct any error in allocation, if such there be, by acquiring the activity to which the party has been made liable. . . . On this basis there is no contest—the defendants' capacity [*i.e.*, to buy out the other party to the accident] is superior."⁷⁰ There are some settings where the merger of the interfering activities may be the correct solution to an externalities problem,⁷¹ but it is improbable that the correct solution to the problem of oil spills is to merge the commercial fishing industry and the oil industry into one giant firm. And it is impossible to defend placing liability on the oil companies on the ground that liability would give those companies an incentive to acquire the fishing industry.

With respect, it must be said that Judge Sneed's attempt to apply Professor Calabresi's economic guidelines to the issue of liability in this case is not a success. The judge's conclusion that the oil companies should be liable for the loss to the commercial fishermen even though the fishermen had no property right in fish they had not yet caught seems correct as a matter of economics: only the oil companies can take efficient measures to prevent or limit oil damage to the fish, and making them liable to the fishermen will give the oil companies the correct incentives to take those measures.⁷² But Judge Sneed's effort to articulate his reasoning in economic terms was disastrous.

Of course it does not follow that because judges have difficulty using economic reasoning explicitly, judicial opinions in which no explicit attempt is made to apply economics are likely to make implicit economic sense. Nonetheless, besides providing a cautionary example for judges minded to write in the language of economics, Judge Sneed's opinion in *Oppen* casts at least an oblique light on the occasional suggestion that the positive economic theory of the common law is implausible because judicial opinions rarely use the explicit language of economics. Judge Sneed reached a result that was economically sensible, but he was unable to articulate it satis-

⁷⁰ *Id.* at 570.

⁷¹ See Professor Baxter's interesting proposal for forcing airports to condemn the land within the airport's primary noise contour. Baxter & Aلتree, *Legal Aspects of Airport Noise*, 15 J.L. & Econ. 1, 69-82 (1972).

⁷² This analysis is elaborated in Posner, *Epstein's Tort Theory: A Critique*, 8 J. LEGAL STUD. 457, 467-68 (1979).

factorily in economic terms. It is even less likely that his predecessors of 50 or 100 years ago would have wanted or been able to cast their opinions in explicit economic terms, for there was much less awareness of the technical concepts of economics then than there is today.

B

Professor Edward J. Bloustein, commenting recently on a paper in which I undertook an economic analysis of the right of privacy, used the occasion to question certain aspects of the economic model of law.⁷³ I want to consider this part of his comment rather than his specific reservations about my views on privacy, which I have dealt with elsewhere.⁷⁴

Professor Bloustein begins by stating:

The persuasiveness of Professor Posner's Article on the economic theory of privacy hinges on his apparent success in transforming, in classical rationalistic fashion, a complex and disorderly jumble of legal rules into a simple and unified scheme of explanation. Unfortunately, in at least one important sense, Posner's theory is simplistic, not simple, because it accomplishes its objective by avoiding, rather than confronting, complexity. He seduces by reduction, rather than convincing by explanation.⁷⁵

This statement brings out the fundamental difference between the legal and the economic culture, or, more broadly, between the humanistic and scientific approach. The goal of science, including economic science, is to explain complex and seemingly unrelated phenomena by reference to a theoretical model or construct, and the power of a scientific explanation can be expressed as the ratio of the different phenomena explained to the number of assumptions in the theory. A simple theory tends to yield more, and more definite, hypotheses than a complex one (a complex theory is more difficult to falsify—and hence to confirm); if these hypotheses survive their confrontation with the test data, the power of the theory to organize diverse phenomena is confirmed. Abstraction is thus the essence of scientific theory, and a successful theory is bound to ignore a good deal of the apparent differences between phenomena—for example, in Galileo's law of falling bodies, the differences between apples and

⁷³ Bloustein, *supra* note 63.

⁷⁴ See Posner, *Privacy, Secrecy, and Reputation*, *supra* note 40, at 24-25 n.54.

⁷⁵ Bloustein, *supra* note 63, at 429 (footnote omitted).

oranges or stones and bricks. The legal scholar, however, is not oriented toward finding a simple theoretical structure, economic or otherwise, beneath "a complex and disorderly jumble of legal rules." He may note and deplore logical inconsistencies within the jumble, but the idea that it might conceal an inner, and simple, economic logic is unlikely to occur or to appeal to him, and the proposal of such an idea may strike him as "pretentious and immodest."⁷⁶

The reasonable kernel in such a reaction is the sense that a practicing lawyer cannot ignore any part of the jumble. An economic approach that explained 90 percent of some set of legal rules or outcomes would be judged strikingly successful by the standards of social science, but it would leave the legal practitioner with a hollow feeling if he had a case to which the unexplained 10 percent of the precedents were relevant. Perhaps that is why many legal scholars are suspicious of the application of economics to law. They feel that more is needed to explain 100 percent of the outcomes and that the whole 100 percent must be given some explanation, however flabby, lest the practitioner be caught with nothing to say when asked to interpret or distinguish a precedent arguably applicable to his case.

There is a confusion of levels here. The virtues—and I regard them as genuine virtues—of the practicing lawyer include plausibility, moderation, a decent respect for conventional opinion, an ability to manipulate an ambiguous rhetoric of right, justice, and fairness, and other qualities and skills—rhetorical and forensic—that in scientific research are not virtues, but often vices. Bloustein's mistake is to expect social scientific writing about the legal system to resemble the way in which the practicing lawyer, or the academic lawyer who thinks like a practicing lawyer, writes about the legal system.

One of the most common criticisms of the economic analysis of law, as of economics in general, is that it rests on the unrealistic assumption that people are rational maximizers of their self-interest. Bloustein embraces this criticism; he thinks it especially unrealistic to assume that criminals are rational maximizers.⁷⁷ But the criticism rests on two fallacies. The first, which is surprising to find in the age of psychoanalysis, is that introspection provides the only reliable evidence of motivation. Bloustein is not conscious that he is making rational-maximizing calculations when he decides to

⁷⁶ See *id.* at 452.

⁷⁷ See *id.* at 431-34.

go to the theater or read a book or accept the presidency of Rutgers, and he therefore infers that the rational model is inapplicable to him and a fortiori to those who commit crimes. But the idea that the only springs of human action are fully thought out decisions is naive. One does not have to be a Freudian to realize that much purposive human action is formulated at the unconscious level.

The second misunderstanding underlying the attack on the realism of the economist's assumption of rational self-interested behavior is the view—an unarticulated but unmistakable premise of Bloustein's discussion—that the way to test a theory is to compare its assumptions directly with reality. Followed consistently, this approach would lead, as Professor Alexander Rosenberg, a philosopher of science, has pointed out, to the absurdity of rejecting Newton's first law ("in the absence of forces acting upon it, a body remains at rest (or in uniform rectilinear motion)") on the ground that its antecedent condition (or assumption)—the absence of forces—is never realized.⁷⁸ Rosenberg also points out that among the antecedent conditions for the kinetic theory of gases law to hold "are conditions incompatible with already entrenched laws of nature. . . . Thus, we infer the falsity, and not merely the inapplicability, of the kinetic theory of gases to the actual behavior of gases."⁷⁹ Yet Rosenberg goes on to note that "though not merely strictly inapplicable but also false, the classical kinetic theory is plainly useful and relevant. It constitutes imperfect knowledge. For a range of values of pressure, temperature, and volume, it provides results which can be relied upon up to certain limits."⁸⁰

Rosenberg explains that the same is true of economics.⁸¹ Various assumptions commonly made in economic studies, such as perfect competition, perfect knowledge, and instantaneous adjustments by producers to changes in the conditions of demand and supply, are "false," but they do not falsify the studies that utilize them. For example, the effect of an excise tax on the price and output of the taxed good is often studied using a model of perfect competition. The model contains assumptions or antecedent conditions that are not reflected in reality, but it yields correct qualitative results (price rises and output falls) in the normal case, and tolerably reliable quantitative results. Rosenberg goes on to point out that the kinetic theory of gases has been progressively improved by refining its assumptions (in just the same way that Galileo's law of

⁷⁸ A. ROSENBERG, *supra* note 24, at 187.

⁷⁹ *Id.* at 188.

⁸⁰ *Id.*

⁸¹ *See id.* at 189-93.

falling bodies was refined to take account of air pressure so that the anomalous behavior of feathers could be explained) and that a similar process is under way in economics. This process is illustrated by the development of models that assume uncertainty instead of certainty, imperfect competition instead of perfect competition, or other more realistic approximations of the behavior being modeled.

Bloustein might conceivably accept the above but argue that the behavior of criminals is outside the domain of current economic models, just as the behavior of a falling feather is outside of the domain of—cannot be predicted by—the law of falling bodies as originally formulated. Bloustein may be correct, but this is not a question to be resolved a priori: the assumption that criminals respond to incentives in the form of more severe or more certain punishment is not so implausible as not to be worth testing empirically. Yet Bloustein, while deriding the unrealism of assuming that a person deciding whether to commit a crime is a rational maximizer of his self-interest, completely disregards—he does not even cite—growing evidence that the economic model predicts criminal behavior with greater accuracy than any competing positive theory of such behavior.⁸² The criminal reacts to changes in “price,” whether it is the “price” of substitute legitimate employment or the severity of the criminal sanction or the probability of its imposition, in the same way that law-abiding people react to changes in price and cost. This evidence provides a reason for regarding the economic model of criminal behavior as “true” in an important sense, al-

⁸² Bloustein's discussion of the economics of crime, Bloustein *supra* note 63, at 431-34, is inaccurate in several respects. The most important of these is, as mentioned in the text, that he overlooks the empirical literature supporting the economic model of criminal behavior. See the authorities cited in ECONOMIC ANALYSIS OF LAW 165 n.1. For some later additions to the literature, see Ehrlich, *Capital Punishment and Deterrence: Some Further Thoughts and Additional Evidence*, 85 J. POLITICAL ECON. 741 (1977); Ehrlich & Mark, *Fear of Deterrence: A Critical Evaluation of the "Report of the Panel on Research on Deterrent and Incapacitative Effects,"* 6 J. LEGAL STUD. 293 (1977). Bloustein makes no mention of this literature in stating that “most authorities” are skeptical regarding the deterrent effect of criminal punishment. Bloustein, *supra* note 63, at 434. The statement is conceivably supportable with regard to capital punishment, but not with regard to other forms of criminal punishment. Bloustein overlooked the economic evidence though it is discussed on the same page of my book from which he quoted another passage.

Also, Bloustein incorrectly characterizes the second edition of *Economic Analysis of Law* as acknowledging that the purely economic approach of the first edition to crime was inadequate. Bloustein, *supra* note 63, at 431-32. The second edition simply makes explicit additional features of the economic model, as part of a general expansion in the discussion of substantive criminal law in the second edition. Compare R. POSNER, ECONOMIC ANALYSIS OF LAW 357-74 (1973) with ECONOMIC ANALYSIS OF LAW 163-78. His remark that the second edition recognizes “crimes of passion” as an exception to the economic theory of crime is the exact opposite of what the second edition states. Compare Bloustein, *supra* note 63, at 432, with ECONOMIC ANALYSIS OF LAW 165.

though from another standpoint it may seem to rest on a severely reductionist conception of the criminal mentality.

Bloustein also states that “[i]n using the concept of ‘externality’ the economist is, in effect, abandoning the market place as a determinant of social choice and disguising his abandonment by the use of a term which looks like a term of economics.”⁸³ The idea that externalities represent an embarrassment for the positive (or the normative) economic theory of law is 180 degrees off the mark. One of the main purposes of law, from an economic standpoint, is the control of externalities. The *Oppen* case is illustrative. Property rights and liability rules, including the liability rule invoked in *Oppen*, are devices by which people are given incentives to internalize the costs and benefits of their actions so that an efficient allocation of resources is achieved. Yet Bloustein thinks well enough of his point to repeat it: “The concept of ‘external’ costs and benefits is an invitation to go outside the market-place, outside the scope of economic analysis and into the arena of public policy and social ethics.”⁸⁴ He fails to understand that economics is not just the study of behavior in explicit markets free of externalities. It is also the study of imperfect and implicit markets and of the social controls, including property rights and liability rules, by which the (potential) externalities in such markets are internalized.

Among his other economic errors, Professor Bloustein garbles the economic concept of scarcity. He asks: “Is a name or a likeness a ‘scarce resource,’ subject to the laws of the marketplace? In economic terms, the commercial use of a name costs the owner nothing; . . . there is no . . . ‘opportunity cost’ to the use of a name.”⁸⁵ It is true that it costs me nothing to *acquire* my name, but it may cost me a great deal to make that name commercially valuable. And even if it would not cost me anything, there would still be an opportunity cost to the use of the name. The opportunity cost to a celebrity of the commercial use of his name is simply the price he could get from the next highest bidder. If the commercial use of his name is valuable, that price, and hence the opportunity cost, will be positive. Perhaps Bloustein thinks there is no *social* opportunity cost because additional uses would not reduce the value of existing uses: the name is a good in inexhaustible supply. But this, too, would be incorrect. If *anyone* could use a particular celebrity’s name in advertising, the total advertising value of the name would be less than if

⁸³ Bloustein, *supra* note 63, at 435.

⁸⁴ *Id.* at 452.

⁸⁵ *Id.* at 448.

the celebrity were permitted to limit its use. What would Hertz gain from using O.J. Simpson's name and likeness in its advertising if every other car-rental company could use his name and likeness as well? Perhaps Bloustein does not think advertising is a genuine social good. But he does not say it is not one, and if he did, he would be making a point that is increasingly rejected by economists.⁸⁶

The economic approach to law is not above criticism, but it should be informed criticism. I hope this paper will promote such criticism by clarifying the nature and aims of the economic approach and by dispelling some prevalent misconceptions and erroneous criticisms of it.

⁸⁶ See, e.g., Nelson, *Advertising as Information*, 82 J. POLITICAL ECON. 729 (1974).