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Positivism in Law & Economics

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The term "positivism" does not describe a universal scientific methodology, but rather a variety of methods that are unique to different disciplines. Positivism in law and in economics are not the same, for the concerns of the two disciplines and their underlying assumptions are different. In addition, the activities of selecting relevant concerns and of identifying appropriate assumptions are, in both economics and law, purely normative. In this Article, the author argues that the unconstrained application of economic positivism to legal analysis produces an impoverished view of the goals of law for a number of reasons. First, identifying the state of affairs that maximizes wealth, or allocative efficiency, is a normative, rather than positive, endeavor. Second, the economic concept of wealth maximization, or allocative efficiency, fails to capture all that the legislative policymaker has in mind when she speaks of the welfare, or "well-being," of individuals in the legal community. The author asserts that alternative measures of welfare are equally scientific within their respective disciplines and are better at accounting for the legal policymaker's appropriate concerns. The author examines one example—the notion that welfare (efficiency) and equity must be traded against each other—and concludes that strict economic analysis is both normative and impoverished. The author argues that under alternative, equally "positive," conceptions of welfare, an increase in equity may imply an increase in welfare.

I

INTRODUCTION

The Chicago School of law & economics seeks to apply the economic methodology called "positivism" to the study of law. This essay

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argues that positivism has, at best, a poor analogue in the law. Further, many of the economic concerns of legal policy fall within the domain of welfare economics, a branch of economics where positivism is most controversial and least practiced. Of all the theories of welfare, the welfare theory called "wealth maximization" is the most comprehensive attempt to apply neoclassical welfare economics to the law. For all its claims to science, however, wealth maximization measures a society's welfare by making many assumptions that must be characterized as normative. The other social sciences offer alternative measures of welfare, which I term "well-being," that are neither more normative nor less positive. The legal policymaker who adopts an approach to measuring well-being drawn from sources other than economics does not give up any of her claim to being scientific, given that this claim was weak in the first place. In addition, these alternative measures of well-being do a better job of accounting for the goals of legal policy than does the economic concept of welfare.

A. *Economic Positivism*

Economists often use the word "positive" to refer to economic analysis that is descriptive rather than normative. A positive economic analysis says simply that, given a certain set of premises, *A*, *B*, and *C*, some conclusion *D* will follow. A positive economic proposition is: "If domestic manufacturing is not competitive, quotas on foreign imports will result in higher prices."¹ By contrast, normative economics involves policy choices among alternatives. A normative economic proposition is: "Input quotas are bad policy, particularly if domestic manufacturing is not competitive."²

A growing body of economics literature argues that what often pass for positive issues are really normative issues in disguise.³ Milton Friedman believed the converse. In his famous essay, *The Methodology of Positive Economics*,⁴ he argued that many or perhaps even most disputes that appear to be normative are actually positive disputes. For example, Friedman surmised that economists generally agree on the nor-

1. The use of "positive" in this fashion is quite old. See, e.g., Böhm-Bawerk, *The Positive Theory of Capital and Its Critics* (pts. 1-3), 9 Q.J. ECON. 113, 235 (1895), 10 Q.J. ECON. 121 (1896); Hawley, *A Positive Theory of Economics*, 16 Q.J. ECON. 233 (1902); Ward, *Scientific Basis of Positive Political Economy* (pts. 1 & 2), 12 INT'L REV. 352, 439 (1882).

2. On the development of the positive-normative distinction in economics, see T. HUTCHISON, 'POSITIVE' ECONOMICS AND POLICY OBJECTIVES (1964).

3. For a summary of the literature on this subject, see *Symposium on Post-Chicago Law and Economics*, 65 CHI.-KENT L. REV. 3 (1989). For example, the argument is stated in Posner, *The Future of Law and Economics: A Comment on Ellickson*, 65 CHI.-KENT L. REV. 57, 61 (1989).

4. M. FRIEDMAN, *The Methodology of Positive Economics*, in *ESSAYS IN POSITIVE ECONOMICS* 3 (1953).

mative proposition that a livable wage for every worker is a good thing.⁵ They differ only on whether the minimum wage law will achieve this goal. Some say that it will, but others say that minimum wage regulation will cause unemployment and even greater hardship among the poor. These differences rest on empirical propositions and can be tested. A positive methodology that shows which side of the minimum wage debate is empirically correct will therefore eliminate the "normative" controversy.⁶ The successful application of a positive methodology isolates those elements in economic controversy that are strictly normative, while producing consensus about everything else.

A positivist describes his methodology as a procedure by which one formulates a hypothesis and then tests its reliability by attempting to falsify it through empirical observation. To the extent that a hypothesis cannot be falsified, it is said to be robust, or predictive. Friedman advocates such "positivism" as the method for economics.⁷ Under Friedman's positivist methodology, the usefulness of a proposition is determined not by its plausibility or verisimilitude, but rather by its predictive power. Positive economics is designed

to provide a system of generalizations that can be used to make correct predictions about the consequences of any change in circumstances. Its performance is to be judged by the precision, scope, and conformity with experience of the predictions it yields.⁸

Positivist economists prefer stripped-down models that account for few of the world's facts but have great predictive power, over complex models that account for everything but make prediction difficult. In fact, Friedman argued that not only is descriptive realism unimportant, but it is positively bad. "A hypothesis is important if it 'explains' much by little, that is, if it abstracts the common and crucial elements from the mass of complex and detailed circumstances surrounding the phenomena to be explained and permits valid predictions on the basis of them alone."⁹ The best model will have only a small number of variables even

5. *Id.* at 5.

6. *Id.* at 5-6.

7. See generally M. FRIEDMAN, *supra* note 4. The method was first suggested in the 1930s by Lionel Robbins. See D. O'BRIEN, LIONEL ROBBINS, ch. 3 (1988); see also I. LITTLE, A CRITIQUE OF WELFARE ECONOMICS (1957). Friedman's methodology was strongly influenced by the positivist critique of science generally. See, e.g., K. POPPER, THE LOGIC OF SCIENTIFIC DISCOVERY (1959). See generally Blaug, *Kuhn Versus Lakatos or Paradigms Versus Research Programmes in the History of Economics*, in METHOD AND APPRAISAL IN ECONOMICS 149-80 (S. Latsis ed. 1976).

8. M. FRIEDMAN, *supra* note 4, at 4.

9. *Id.* at 14. For a criticism of this viewpoint, see T. KOOPMANS, THREE ESSAYS ON THE STATE OF ECONOMIC SCIENCE 137-42 (1957); Bear & Orr, *Logic and Expediency in Economic Theorizing*, 75 J. POL. ECON. 188 (1967); Nagel, *Assumptions in Economic Theory*, 53 AM. ECON. REV. PAPERS & PROC. 211, 214 (1963); Samuelson, *Problems of Methodology: Discussion*, 53 AM. ECON. REV. PAPERS & PROC. 231 (1963).

though the real world has many, yet the model will yield results that are consistent with real world observations.

B. Legal Positivism

We also use the words "positivism" and "positive" to talk about the nature of law or the method for studying it. To speak of the positive law of a society is to describe its legal rules as they actually exist, rather than as we think they should be.¹⁰ But legal positivism also means the study of a community's law that is scientific in some sense. Legal positivism has come to refer to a collection of theories that law consists of a set of rules produced by the sovereign, rather than from some higher place.¹¹ The legal positivist believes as a normative proposition that law must be separated from morals. This last statement must be qualified, however, and legal positivists do not agree about its meaning. Some legal positivists treat moral statements as social conventions that might rise to the level of legal rules; others might go even further and permit a judge to consult her own morality in difficult cases where the results are otherwise indeterminate.¹²

The positivist who studies a society's law will almost certainly find it necessary to study its morals, but she conducts this study in a scientific rather than a normative way, as the psychologist or sociologist of religion studies dogma. For example, the statement that "the Puritan legal system penalized Sunday work in order to enforce a religious belief that sabbath desecration is contrary to God's Word" is *positive* both because (1) it purports to be descriptive and (2) it can (probably) be verified or falsified. The person developing such a proposition, however, would not be studying law apart from morals. Rather, she would be studying *both* law and morals, but in a positive fashion. It would therefore be more appropriate to say that the legal positivist studies a society's law without attempting to determine the truth or falsity of the moral propositions upon which that law is based.

The methodology of present-day legal positivism is quite different

10. Use of the term "positive law" in this sense in America is quite old. See, e.g., *United States v. Bevens*, 16 U.S. (3 Wheat.) 336, 364 (1818); *Hoare v. Allen*, 2 U.S. (2 Dall.) 102, 103 (1789); *Pollard v. Shaffer*, 1 U.S. (1 Dall.) 210, 211-12 (1787); *Pirate v. Dalby*, 1 U.S. (1 Dall.) 167, 167 (1786). In Continental jurisprudence, the term *ius positivum* dates back to the late Middle Ages and refers to a sovereign's legislation—law merely created by men—rather than natural law. See Ago, *Positive Law and International Law*, 51 AM. J. INT'L L. 691, 692-93 (1957). Legal positivists view the "positive law" as the only set of obligations entitled to be called "law." See P. SOPER, A THEORY OF LAW 102 (1984).

11. See generally H.L.A. HART, THE CONCEPT OF LAW (1961); J. RAZ, THE CONCEPT OF A LEGAL SYSTEM (1970); S. SHUMAN, LEGAL POSITIVISM: ITS SCOPE AND LIMITATIONS (1963).

12. See J. COLEMAN, MARKETS, MORALS AND THE LAW 3-27 (1988); Kress, *Legal Indeterminacy*, 77 CALIF. L. REV. 283, 327-28 (1989); Raz, *Authority, Law and Morality*, 68 MONIST 295, 311-15 (1985); see also P. SOPER, *supra* note 10, at 104-05, 107-09.

from that of economic positivism. While economic positivism is dedicated to maximizing the predictive power of economic models, legal positivism seems to be moving in the opposite direction. For an eighteenth- or nineteenth-century positive jurist, such as Bentham, Austin, or Holmes, law was simply the command of the sovereign, and identifying those commands was not particularly difficult.¹³ For many legal realists earlier in this century, such as Jerome Frank, legal positivism meant that law is a prediction of what courts will do in fact.¹⁴

Positivists since H.L.A. Hart, however, have become preoccupied with the search for a "rule of recognition" to help identify which of a society's many customs, values, rules, norms, and taboos are entitled to be called "law."¹⁵ For some, the rule of recognition seems deeply embedded in a society's culture, thus making it difficult to distinguish what does or does not count as part of the rule. For example, Jules L. Coleman advocates a form of legal positivism that would include "social conventions" as part of the rule of recognition to which the positivist judge must turn.¹⁶ Joseph Raz would permit a judge to consult her critical morality in difficult cases.¹⁷ Such versions of positivism are better suited to providing historical explanations of previously rendered judgments (e.g., why did the court hold surrogate motherhood agreements not to be enforceable?) than to producing reliable predictions about future judgments in close cases (e.g., will the court decide that surrogate motherhood agreements are unenforceable?).¹⁸ Prediction may be possible in "easy" cases that clearly fall within the rule established by an earlier, authoritative statute or case. In difficult cases, however, the judge has discretion, and the final outcome is indeterminate.

In this sense, modern legal positivism is much less formalistic than economic positivism. Even "hard facts" legal positivism¹⁹ seems quite open-textured and subject to manipulation when compared to, for example, geometry or formal price theory. In fact, an important—if controversial—principle of Hart's legal positivism is that the existing system does not dictate, or "predict," an answer in close cases.²⁰ Many legal

13. On the level of determinacy in Bentham's positivism, see J. STEINTRAGER, BENTHAM (1977).

14. See Frank, *What Courts Do In Fact*, 26 ILL. L. REV. 645 (1932).

15. H.L.A. HART, *supra* note 11, at 97-150; see also J. RAZ, THE AUTHORITY OF LAW 41-52 (1979); J. RAZ, *supra* note 11; Lyons, *Principles, Positivism and Legal Theory* (Book Review), 87 YALE L.J. 415 (1977).

16. J. COLEMAN, *supra* note 12, at 3-27. On the potential breadth of the rule of recognition in common law adjudication, see F. Schauer, *Presumptive Positivism* (forthcoming 1991).

17. See, e.g., Raz, *supra* note 12, at 311-15.

18. For example, for Raz, critical morality becomes part of the "law" only after the decision. See Kress, *supra* note 12, at 327-28.

19. The term is Coleman's. J. COLEMAN, *supra* note 12, at 7.

20. See H.L.A. HART, *supra* note 11; see also Hart, *Positivism and the Separation of Law and*

positivists simply deny that positivism is a methodology of legal *reasoning* at all.²¹ Rather, they assert that its purpose is to help us explain or understand legal rules that already exist, not to predict what the next legal rule should be.²²

Thus, while economic positivism is concerned largely with prediction, legal positivism seems to be concerned principally with explanation. In this sense, legal positivism is more closely akin to two economic traditions no longer on the midway of economic theories. The first of these traditions is the German Historical School of the early twentieth century. Its followers set out to discover all the relevant facts, not to strip away or ignore any facts not essential to a prediction.²³ The German Historical School built upon nineteenth-century empiricism, which involved the collecting and sorting of many facts—the more facts the better—rather than the formulation of simple predictive models.²⁴

The second tradition is institutionalism, which was part of the great “social science” revolution that occurred during the Progressive Era.²⁵ Institutionalism was a reaction to the emerging neoclassical view that economics must be purely formal, driven mainly by mathematical concepts. The institutionalists were opposed both to the formalism and the high theory of neoclassical economics, principally because neoclassicism did such a poor job of “describing” real world phenomena. The institutionalist economists recognized that economic decisionmaking is often influenced by institutional constraints. Similarly, most legal positivists are very conscious of the institutional constraints on legal rulemaking.²⁶

Morals, 71 HARV. L. REV. 593, 606-07 (1958); Kress, *supra* note 12, at 287; cf. M. EISENBERG, *THE NATURE OF THE COMMON LAW* (1988) (arguing that common law judges necessarily make policy choices among a wide range of plausible alternatives).

21. See generally S. SHUMAN, *supra* note 11.

22. See generally R. DWORKIN, *LAW'S EMPIRE* (1986); R. DWORKIN, *TAKING RIGHTS SERIOUSLY* 17-22 (1977); Burton, *Ronald Dworkin and Legal Positivism*, 73 IOWA L. REV. 109 (1987).

23. On the general influence of the German Historical School in America, see M. FURNER, *ADVOCACY & OBJECTIVITY* (1975); J. HERBST, *THE GERMAN HISTORICAL SCHOOL IN AMERICAN SCHOLARSHIP* (1965). For the School's influence on American economics, see Dorfman, *The Role of the German Historical School in American Economic Thought*, 45 AM. ECON. REV. PAPERS & PROC. 17 (1955). On the German Historical School and American legal policy, see H. Hovenkamp, *Enterprise and American Law, 1836-1937*, ch. 22 (forthcoming 1991). The decisive attacks on the German Historical School were K. POPPER, *THE OPEN SOCIETY AND ITS ENEMIES* (1950), and K. POPPER, *THE POVERTY OF HISTORICISM* (1957).

24. On nineteenth-century empiricism generally, see G. DANIELS, *AMERICAN SCIENCE IN THE AGE OF JACKSON* (1968); H. HOVENKAMP, *SCIENCE AND RELIGION IN AMERICA: 1800-1860* (1978).

25. On institutionalism, see Hovenkamp, *The First Great Law & Economics Movement*, 42 STAN. L. REV. 993 (1990). Good examples of economic scholarship in the institutionalist tradition are J. COMMONS, *LEGAL FOUNDATIONS OF CAPITALISM* (1924), and T. VEBLEN, *ABSENTEE OWNERSHIP AND BUSINESS ENTERPRISE IN RECENT TIMES* (1923).

26. See, e.g., H.L.A. HART, *supra* note 11, at 64-76.

Institutionalists such as John R. Commons and Wesley Mitchell also believed that individual human institutions distort the basic incentives created by the market more radically than the classical political economists had assumed.²⁷ The rules that govern decisionmaking in one institution cannot automatically be applied to a different institution.²⁸ Economic decisionmaking within the business firm, the state agency, the family, or the municipality, might be quite different than economic decisionmaking in markets. The same details that the neoclassicist wished to strip away therefore became central to the institutionalist's mode of analysis. Similarly, any positivist interested in identifying a rule of recognition will be motivated to link the content of law to the institutions that make it.

C. *Positivism in Law & Economics*

The stated methodology of Chicago School law & economics is at once legal positivism and economic positivism. Positive economic analysis of law seeks to identify a legal rule and then make one or more descriptive statements about the economic effects of that rule. For example, the statement that "the antitrust law of predatory pricing forces some dominant firms to charge inefficiently high prices," implies a positivism of both law and economics. First, one must identify the legal rules against predatory pricing, an exercise in legal positivist methodology. Second, one must determine the effect of these rules on a firm's incentives and the resulting effects on allocative efficiency, an application of economic positivist methodology.

This mixture of legal and economic positivism also appears in the economic analysis of legal institutions such as courts, judicial opinions, civil procedure rules, and the legislative process.²⁹ In such cases, the positivist law & economics scholar attempts to identify the institutional constraints on legal rulemaking, and then to develop an economic theory that accounts for the effects of these constraints. Most such analysis, however, applies neoclassical rather than institutionalist economic tools.

27. See H. Hovenkamp, *The Measure of Justice: Law, Economics and Competing Disciplines*, chs. 1 & 2 (forthcoming 1991).

28. In the 1930s, during the heyday of institutionalism, neoclassical economists seemed loath to engage in empirical research. That has changed, at least in theory, with the positivist methodology of the 1950s and the roughly concurrent development of econometrics, which permits the application of statistics to economic models. See Wilber & Harrison, *The Methodological Basis of Institutional Economics: Pattern Model, Storytelling, and Holism*, 12 J. ECON. ISSUES 61 (1978).

29. See, e.g., R. POSNER, *THE FEDERAL COURTS: CRISIS AND REFORM* 286-93 (1985); Easterbrook, *Statutes' Domains*, 50 U. CHI. L. REV. 533 (1983); Landes & Posner, *The Independent Judiciary in an Interest Group Perspective*, 18 J.L. & ECON. 875 (1975); Posner, *Economics, Politics, and the Reading of Statutes and the Constitution*, 49 U. CHI. L. REV. 263 (1982); Posner, *A Statistical Study of Antitrust Enforcement*, 13 J.L. & ECON. 365 (1970).

Following Ronald Coase's famous article, *The Nature of the Firm*,³⁰ these law & economics scholars presume that basic price theory and market concepts account fully for institutional behavior. Although a brand of neo-institutionalism has begun to make substantial inroads into law & economics,³¹ it is far from the dominant tradition.

D. Normativity and Methodology in the Positivist Economic Analysis of Law

1. Normative Elements of Positive Theories

A commonly voiced criticism of economic positivism today is that positivists do not practice what they preach. Positivists preach the formulation of hypotheses and rigorous attempts to falsify them by producing inconsistent data. A good hypothesis will survive this process. What positivist economists often practice, however, is a much friendlier methodology. Most purported verifications are really nothing more than illustrative observations of data that fail to undermine the hypothesis.³² Mark Blaug analogizes much empirical work in economics to playing tennis "with the net down."³³ Rather than rigorously attempting falsification, economists often do no more than look for data that tend to support their predictions. In the process they replace "falsification, which is difficult, with confirmation, which is easy."³⁴

People engaged in Chicago-style economic analysis of law have been ruthless with economic traditions whose empirical evidence is merely "anecdotal."³⁵ But a set of statistical examples that are merely consistent with the offered hypothesis is nothing more than a detail-overladen anecdote. For example, an economist may say that she has found some statistics to show that during a defined period a certain phenomenon behaved the way the theory predicts. The economist is really only telling a story that *A* or *B* once happened under a certain circumstance. As Friedman himself noted, "[o]bserved facts are necessarily finite in number; possible hypotheses, infinite. If there is one hypothesis that is consistent with the

30. Coase, *The Nature of the Firm*, 4 *ECONOMICA* (n.s.) 386, 390-98 (1937).

31. Perhaps the best example is O. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* (1985).

32. See D. McCLOSKEY, *THE RHETORIC OF ECONOMICS* (1985); Machlup, *The Problem of Verification in Economics*, 22 *S. ECON. J.* 1 (1955); see also *THE STRUCTURE OF ECONOMIC SCIENCE* (S. Krupp ed. 1966); B. WARD, *WHAT'S WRONG WITH ECONOMICS?* (1972) (economics is in fact normative policymaking disguised as positive science).

33. Blaug, *Paradigms Versus Research Programmes in the History of Economics*, in *THE PHILOSOPHY OF ECONOMICS* 360, 376 (D. Hausman ed. 1984).

34. *Id.* Or as Lester Thurow has put it, econometrics—the use of economics plus statistics to make predictions—has "shifted from being a tool for testing theories to being a showcase for exhibiting theories." L. THUROW, *DANGEROUS CURRENTS: THE STATE OF ECONOMICS* 117 (1983); see also Leontief, *Theoretical Assumptions and Nonobserved Facts*, 61 *AM. ECON. REV.* 1 (1971).

35. See, e.g., Posner, *The Chicago School of Antitrust Analysis*, 127 *U. PA. L. REV.* 925 (1979).

available evidence, there are always an infinite number that are."³⁶

This problem that positivism in practice quickly decays into a kind of mathematically supported storytelling is of particular concern in law & economics, where falsification is even more difficult than it is in market economics. For example, in his *Economic Analysis of Law*, Judge Posner's analysis is a form of storytelling not unlike that used by the institutionalist economists.³⁷ In fact, very little in *Economic Analysis of Law*, or most other writing on law & economics, could be described as a rigorous attempt to falsify alternative explanations for a given phenomenon. Although Posner describes the ideal process of economic analysis of law much as Friedman described positive economic analysis—as the formulation of hypotheses followed by rigorous attempts to falsify them from empirical inquiry³⁸—he laments that, even in 1989, "it continues to be the case that a disproportionate share of economic studies of law lack a substantial empirical component."³⁹

2. Problems of Methodology

Those who apply economic positivism to the law often claim more predictive power than most legal positivists claim for themselves. For example, the economic argument that the common law is efficient "predicts" that a common law judge, given a choice, will tend to select efficient rules. She may not do so in every single instance, but it will happen sufficiently often, says the positivist economist, that the general direction of the common law can be deemed efficient.⁴⁰

Often, however, the positivist economist relies on theory rather than observation to reach her conclusion about the economic effects of the legal rule. For example, no one has proved by rigorous attempts at falsification that the common law has tended toward efficiency. Nor has

36. M. FRIEDMAN, *supra* note 4, at 9; see also Caldwell, *A Critique of Friedman's Methodological Instrumentalism*, 47 S. ECON. J. 366, 369 (1980) ("It is well known that for any set of empirical data, an infinite number of mutually incompatible theories exist that can explain the evidence at hand.").

37. See, e.g., R. POSNER, *ECONOMIC ANALYSIS OF LAW* 202 (3d ed. 1986) (criminal law and the rapist); *id.* at 211 (capital punishment and marginal deterrence); *id.* at 313-14 (why women are paid less than men for the same work); *id.* at 393 (relative merits of insider trading); see also Becker & Murphy, *The Family and The State*, 31 J.L. & ECON. 1 (1988) (why parents are nice to children). Similar literature includes G. BECKER, *A TREATISE ON THE FAMILY* (1981); Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968). For an example of a case study, using data from a particular event, see Newmark, *Does Horizontal Price Fixing Raise Price? A Look at the Bakers of Washington Case*, 31 J.L. & ECON. 469 (1988).

38. See Posner, *supra* note 3, at 61.

39. *Id.* at 58-59; see also Hansmann, *The Current State of Law-and-Economics Scholarship*, 33 J. LEGAL EDUC. 217 (1983) (dated but nonetheless valid criticism of law & economics literature for its paucity of empirical studies).

40. See, e.g., R. POSNER, *supra* note 37, at 229-45; Rubin, *Why is the Common Law Efficient?*, 6 J. LEGAL STUD. 51 (1977).

anyone actually measured the social losses or gains resulting from the adoption of, for example, strict liability in tort, or the use of injunctive remedies rather than damages remedies in a particular situation. The positivist economist may be content to note that one could describe a mechanism for verifying or falsifying such propositions. Actual attempts at falsification play only a small part of economic positivism, even in easy cases.

To return to an earlier example,⁴¹ one can easily hypothesize that a rule identifying prices higher than the competitive level as "predatory" and making them illegal will give some firms an incentive to charge relatively high prices, or at least to avoid being too aggressive about cutting prices, in order to avoid antitrust liability. The result is that prices are higher than they would be under hard competition. This in turn leads to a loss in allocative efficiency, which would be maximized if prices were competitive.

Verifying this will not be easy.⁴² An economist faced with the task might start by identifying regimes with different predatory pricing rules. She would then look at firms in these regimes that are vulnerable to charges of predatory pricing—i.e., dominant firms—and compare price/cost relationships in one regime with those in another. This would not end the analysis, however. The economist would still have to ascertain that the differing predatory pricing rules were the only important distinction between the two regimes. For example, the Ninth Circuit, which includes the West Coast, has more pro-plaintiff predatory pricing rules than does the Seventh Circuit, which includes Chicago and part of the Midwest. As a result, one might predict that dominant firms in California charge higher prices in relation to costs than do dominant firms in Illinois. But California also has faster economic growth than Chicago, and thus some California firms will have higher price/cost ratios because a firm whose demand is increasing quickly can charge higher prices profitably. I know of no attempt to verify empirically the efficiency effects of alternative predatory pricing rules. Most attempts to measure the effects of legal rules empirically would run into similar difficulties.⁴³

Further, many economic propositions are not capable of being falsified at all, even if a methodology could be devised. Rather, they represent merely plausible explanations, and the grounds of their plausibility

41. See Section I(C), *supra*.

42. For one attempt at verification, see Zerbe & Cooper, *An Empirical and Theoretical Comparison of Alternative Predation Rules*, 61 TEX. L. REV. 655, 699-715 (1982). The study assigns arbitrary weights to such factors as entry barriers and excess capacity, and gives the edge to a modified Areeda-Turner (average variable cost) rule for predatory pricing.

43. For a broad indictment of economists' attempts to measure the effects of various regulatory regimes, see Kelman, *On Democracy-Bashing: A Skeptical Look at the Theoretical and "Empirical" Practice of the Public Choice Movement*, 74 VA. L. REV. 199, 220-23 (1988).

may be normative rather than positive. In particular, many propositions about the welfare effects of involuntary wealth transfers, which are a principal concern of the legal system, may not be testable.

Of course, some statements can be proven. The statement that individual *market* transactions in competitive markets increase efficiency or wealth can generally be tested, given the rather weak assumptions that (1) the buyer will not purchase unless he values the bargained-for object at more than its price, (2) the seller will not sell unless she values the object at less than its price, and (3) no one else is affected by the transaction. Considering the welfare of buyer and seller alone, the transaction clearly increases value, or welfare. Verification in a particular case now involves nothing more than searching for nonparticipants who may have been injured by the transaction. In most cases, particularly those involving competitive markets, such persons will not be found.

Within the neoclassical scheme of welfare economics, the proposition "state of affairs *X* is allocatively efficient" is said to be positive rather than normative. Allocative efficiency can be strictly defined in terms of empirical concepts, such as marginal cost, or producers' or consumers' surplus, or Pareto superiority. Concededly, one must accept without proof the normative proposition that the law ought to be allocatively efficient. Once that proposition has been accepted, the economic study of the ideal legal regime is a positive venture.

E. Wealth Maximization and Positivism in Law & Economics

Richard Posner tries valiantly to incorporate into law & economics a theory of welfare called "wealth maximization," which identifies welfare with economic surplus.⁴⁴ Economic surplus is the sum of (1) the difference between what a consumer must pay and the maximum she is willing to pay for something, and (2) the difference between the price a seller obtains for its product and the minimum price necessary to sustain the seller in the market.

An important value of wealth maximization as a guiding principle for law & economics is to make empirical measurement of welfare possible. Theoretically, at least, the differences between price and willingness to pay and between price and production cost are observable quantities. Whether a legally significant event decreases or increases wealth may be formally tested by determining (1) how much the victim would have been willing to pay in order to avoid the consequences, (2) how much the offender must be paid to abandon voluntarily the injury-causing activity, and (3) the market value of the damage. The conclusion that the legal policymaker has an ethical obligation to maximize a society's wealth is

44. See R. POSNER, *THE ECONOMICS OF JUSTICE* 48 (1981).

concededly normative.⁴⁵ The economic conclusion that a particular legal rule tends to maximize wealth, however, purports to be positive.⁴⁶

Viewed as a whole, this exercise is consistent with Friedman's argument that positivist methodology tends to limit apparently normative controversy. If we can only agree on one fundamental normative principle—namely, that law should maximize wealth—then the determination of the ideal legal regime becomes a positivist endeavor. The force of the normative legal argument rests entirely on the persuasive force of the proposition that law should maximize wealth.

One can criticize the argument for wealth maximization as a foundation for legal policy in two different ways. First, one can dispute the proposition that identifying the state of affairs that maximizes wealth is a purely positive endeavor. Second, one can argue that neither wealth maximization nor any other version of allocative efficiency captures all that the legislative policymaker has in mind when he speaks of the welfare, or "well-being," of individuals in the legal community. Indeed, alternative measures of welfare, or "well-being," are just as scientific and do a better job of accounting for the legal policymaker's appropriate concerns. This essay now turns to these two criticisms.

II

THE POSITIVE THEORY OF WEALTH MAXIMIZATION

The first critique of wealth maximization as a basis for legal policy is that simply identifying wealth-maximizing, or allocatively efficient, states of affairs fails to limit normative controversy. First, positivism in welfare economics always collapses into instrumentalism, and instrumentalism as a concept is meaningless unless it is stated in reference to some purely normative goal. Second, there is no *empirical* basis for making the jump from wealth maximization to welfare. In order to establish such a basis, we must give welfare a highly idiosyncratic definition that the legal policymaker would find unacceptable.

A. Economic Positivism and Instrumentalism

Milton Friedman concedes that the words "explain" or "predict" with respect to economic theories are not self-defining.⁴⁷ The predicted phenomena often occur in highly imperfect circumstances, and we can collect only finite amounts of data. The correlation between prediction and measured observation is therefore usually far from perfect. In order

45. See *id.* at ch. 4 ("The Ethical and Political Basis of Wealth Maximization").

46. See *id.* at 103-07.

47. M. FRIEDMAN, *supra* note 4, at 8-9.

to verify a given hypothesis absolutely by refuting all alternatives, one must conduct an infinite number of tests.

Nonetheless, we do not evaluate models for their predictive power in the abstract. What is important is whether one model seems to work better than another in a given context. A model should be the best one for the purpose at hand, considering its relative accuracy and the cost of its use. Friedman finds

two important external standards of comparison. One is the accuracy achievable by an alternative theory with which this theory is being compared and which is equally acceptable on all other grounds. The other arises when there exists a theory that is known to yield better predictions but only at a greater cost. The gains from greater accuracy, which depend on the purpose in mind, must then be balanced against the costs of achieving it.⁴⁸

"The decisive test," as Friedman puts it, "is whether the hypothesis works for the phenomena it purports to explain."⁴⁹

An important consequence of instrumentalism is to place strict limits on the domain of any particular hypothesis. A hypothesis that has survived testing in a particular context might fare poorly when used elsewhere. Statements within a given economic model are deemed "true" because that model yields better predictions with respect to a certain question than does some alternative model. When the question changes, the model must be reexamined by empirical testing and comparison with alternative hypotheses.

1. *The Profit-Maximization Hypothesis*

The various applications of the general proposition that firms maximize profits provide a good example of the limits of instrumentalism. The profit-maximization hypothesis is probably not verifiable in any universal sense. Nevertheless, the hypothesis is absolutely essential to neo-classical price theory, and price theory is the most formal, and least normative, of economic subdisciplines.⁵⁰

The proposition that firms maximize profits accounts for the theoretical conclusions that (1) price under competition equals marginal cost; (2) firms with market power price at the intersection of their marginal cost and marginal revenue curves; (3) price-regulated firms, which generally are permitted a rate higher than marginal cost, often try to increase their customer bases or make new capital investments whether or not

48. *Id.* at 17.

49. *Id.* at 30.

50. *But see* L. THUROW, *supra* note 34, at 216-37 (finding turmoil and division even in neoclassical price theory).

these enlargements are efficient;⁵¹ and (4) firms integrate vertically when integration is more profitable than using the market.⁵² The proposition also forms the basis of the Coase Theorem and its corollaries, such as the assertion that an optimal negligence rule will ordinarily place liability on the lowest cost-avoider.⁵³

This ubiquity creates a problem for the economist who purports to be a hard-core positivist. Although the proposition that firms maximize profits purports to be empirical, it is in fact controversial.⁵⁴ The profit-maximization hypothesis is also not a tautology: the proposition that firms maximize profits is not deducible from the proposition that individuals maximize utility. The second proposition may in fact be a tautology:⁵⁵ what each individual does by definition maximizes his or her utility. But the first proposition is neither equivalent to the second, nor deducible from it, for at least two reasons. First, individuals are not the same as firms. For example, firms must make tradeoffs among groups of individual owners or directors. Second, utility is not the same thing as profit. Although individuals are utility-maximizers, they are not necessarily profit-maximizers. Many individuals make choices that give them lower incomes but greater amounts of nonmonetary satisfaction.

By any acceptable standard of positivism, the firm profit-maximization hypothesis is not particularly robust. Under the Friedman methodology, one would test the hypothesis by attempting to falsify a suitable variation of it. The real proposition, of course, is not that every action a firm takes turns out to maximize its profits. Coca-Cola's decision to change its secret formula or Ford Motor Company's development of the Edsel were clearly not profit-maximizing decisions when considered *ex post*. The proposition that we wish to use explains firm *motivation* rather than actual result. It would therefore be something like "a firm always does things that its managers calculate will maximize its profits."

Once the positivist economist had devised a statement of the proposition suitable for testing, she would not test it by observing that it seems plausible or by finding some instances in which it seems to work. A rig-

51. M. CREW & P. KLEINDORFER, *THE ECONOMICS OF PUBLIC UTILITY REGULATION* 120-24 (1986); Averch & Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052 (1962).

52. Coase, *supra* note 30, at 390-98.

53. See W. LANDES & R. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 63 (1987); Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960); Hovenkamp, *Marginal Utility and the Coase Theorem*, 75 CORNELL L. REV. 783 (1990).

54. Those who deny the general proposition of firm profit-maximization include A. BERLE & G. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* (1933); Simon, *Rational Decision Making in Business Organizations*, 69 AM. ECON. REV. 493 (1979).

55. See Boland, *On the Futility of Criticizing the Neoclassical Maximization Hypothesis*, 71 AM. ECON. REV. 1031 (1981); Caldwell, *The Neoclassical Maximization Hypothesis*, 73 AM. ECON. REV. 824 (1983).

orous positivist would instead attempt to find instances in which it turns out to be false. She would try to find at least one instance, or perhaps a nontrivial number of instances, in which firms made decisions that, *ex ante*, were not reasonably calculated to maximize profits.

The profit-maximization hypothesis would not survive such a rigorous test. One can find numerous phenomena that seem quite inconsistent with the profit-maximization hypothesis. For example, (1) managers sometimes commit criminal or noncriminal acts that enrich themselves at the expense of the firm; (2) managers sometimes make decisions calculated to increase firm *output* or size, rather than profitability, for that is how the manager is rewarded;⁵⁶ (3) managers sometimes make decisions driven by envy or spite directed at competitors or others, even though the decisions are not in the best interest of the firm; (4) managers, particularly if they are majority stockholders, often retain their jobs long after they have become inefficient; (5) managers go to extraordinary lengths, such as adopting "poison pills," to prevent takeovers by other firms, even though the result of the takeover would be to make the firm more efficient and its stockholders wealthier; (6) stockholders sometimes purchase or sell shares for social or political reasons rather than for economic reasons. For example, they may sell because they object to the firm's presence in countries with racist policies, or they may buy because they want to influence the firm's environmental policies. All these empirical observations are inconsistent with the hypothesis that firms always act to maximize profits.

The profit-maximization hypothesis is a limited-use, or instrumentalist, proposition. For example, it may explain certain theories of firm behavior, such as the proposition that a firm will raise prices if its only competitor exits from the market, or lower prices in response to new entry. But the seeming validity of the profit-maximization hypothesis in this context may say little about its persuasive power in other contexts.

Economists do not limit their use of the profit-maximization hypothesis to situations where the hypothesis is strictly consistent with the evidence. They apply it in many situations where falsification is either conceptually impossible or else very difficult. For example, the simple proposition that under perfect competition price equals marginal cost, a corollary of the profit-maximization hypothesis, is extremely difficult to verify. There are no perfectly competitive markets in which one

56. On output above the profit-maximizing level, see O. WILLIAMSON, *THE ECONOMICS OF DISCRETIONARY BEHAVIOR* 85-126 (1964); Williamson, *Profit, Growth and Sales Maximization*, 33 *ECONOMICA* (n.s.) 1 (1966); Wong, *Profit Maximization and Alternative Theories: A Dynamic Reconciliation*, 65 *AM. ECON. REV.* 689 (1975). On revenue maximization, see W. BAUMOL, *BUSINESS BEHAVIOR, VALUE AND GROWTH*, ch. 6 (rev. ed. 1967); Leland, *The Dynamics of a Revenue Maximizing Firm*, 13 *INT'L ECON. REV.* 376 (1972).

could verify that price under competition equals marginal cost. Even if such markets existed, the proposition would either be difficult to verify, or else one might identify sufficient counter-instances to proclaim the prediction dubious.⁵⁷

Similarly, the proposition that the monopolist's price is determined by the intersection of its short-run marginal cost and marginal revenue curves is difficult to verify. In fact, the kind of monopolist to which it might apply is very hard to find. Most *de facto* monopolists—those whose status is not protected by law—face at least some potential of competitor entry, and set their prices lower than the model suggests.⁵⁸ Most *de jure* monopolists—those who do have statutory protection from competition—are price-regulated.⁵⁹ Nearly all the *de jure* monopolists who are not price-regulated, and the *de facto* monopolists who have absolutely no reason to fear competition, have at least some power to engage in price discrimination.⁶⁰ Consequently, the powerful theoretical conclusion that the monopolist equates marginal cost and marginal revenue is simply not susceptible of rigorous empirical testing over a broad range of firms.

One might ask what happens to the neoclassical model if the assumption of firm profit maximization is not true, or is true only part of the time. The answer, it seems, is not very much. For most purposes economists do not consider the profit-maximization hypothesis to be capable of empirical testing at all. Rather, it is a convention generally accepted by economists without empirical proof.

But what justifies this particular convention rather than some other one? A commonly given defense of the profit-maximization hypothesis—and the one that I think best explains it—is that we simply assume firm profit maximization because it seems also to maximize the firm owners' economic return.⁶¹ The neoclassical model predicts that competitive firms consistently making non-profit-maximizing decisions will not survive. Further, we assume that people are both rational and self-interested, and that when people are engaged in business, rational self-interest translates into dollars.

It now seems clear, however, that the profit-maximization hypothesis is normative, not positive. We assume profit maximization not because it can be tested, but because it is in some sense *better* for firms to

57. See, e.g., Hall, *The Relation Between Price and Marginal Cost in U.S. Industry*, 96 J. POL. ECON. 921 (1988) (concluding that prices in many American industries are substantially higher than marginal cost).

58. See H. HOVENKAMP, *supra* note 24, at ch. 11.

59. See *id.*

60. See H. HOVENKAMP, *ECONOMICS AND FEDERAL ANTITRUST LAW*, ch. 13 (1985).

61. D. MCCLOSKEY, *THE APPLIED THEORY OF PRICE* 240-41 (1982); A. THOMPSON, JR., *ECONOMICS OF THE FIRM: THEORY AND PRACTICE* 300-16 (4th ed. 1985).

maximize profits than for them not to do so. Alternatively, we might say that it is merely "human nature" for people acting as investors to wish to maximize their returns. But this statement is itself as controversial as the proposition that firms maximize profits, and no more testable. One can find a nontrivial number of instances in which investors invest for some reason other than profit maximization. Given the ubiquity of the firm profit-maximization hypothesis in neoclassical model building, it seems that on this point positive economics itself is ubiquitously normative.

B. Positivism, Wealth Maximization, and Welfare

Welfare economics, a distinct branch of economics devoted to the study of welfare, or allocative efficiency, is considerably more normative than price theory. Perhaps we can speak meaningfully of the predictive power of a model when we are dealing with observable events such as business firm responses to changes in cost, demand, or new competition. Even a hypothesis as resistant to testing as the firm profit-maximization hypothesis has considerable explanatory power. But what does it mean to say that a model "predicts" changes in human *welfare*?

The answer is not at all certain. The concept of welfare is not self-defining, and measuring it is at best problematic. A person's subjective state of mind that he or she is "well off" cannot be measured empirically; therefore, like practitioners of the other social sciences, the positivist welfare economist proceeds by developing surrogates for welfare that can be measured and quantified.⁶²

Determining the kinds of measurable concepts that can be used as surrogates for welfare is nothing if not a normative activity—and one that has a remarkable influence on legal policy. We measure welfare by only the crudest of surrogates. Under what circumstances is it possible to say that a legal rule predictably increases or decreases welfare? If this is often impossible, then why should the legal policymaker prefer predictive power over basic plausibility as a basis for adopting a particular scientific model?

As noted above, Friedman's positivist methodology can support its claim to being scientific only if it is regarded as *instrumentalist* rather than descriptive in any sense of that word. Friedman himself apparently agrees with that characterization.⁶³ The conclusion that positivism in economics is actually instrumentalism is critical. If true, it means that the entire debate about verification or falsification is a red herring, unless

62. See R. JUST, D. HUETH & A. SCHMITZ, *APPLIED WELFARE ECONOMICS AND PUBLIC POLICY* 3-5 (1982).

63. See Boland, *A Critique of Friedman's Critics*, 17 J. ECON. LIT. 503 (1979); Caldwell, *supra* note 36, at 367.

we give those terms rather idiosyncratic meanings. That is precisely what Friedman does.

The instrumentalist does not really care whether a theory is "true" or "false," and may even believe that those terms carry no scientific meaning at all, particularly if they are meant to imply some degree of conformity with the real world. The instrumentalist is concerned with methodology, not epistemology. For her a theory is predictive, or robust, if it is useful for solving a particular problem.⁶⁴ Once someone has formulated a theory, it is not especially important to attempt to falsify it aggressively. Rather, one should simply consider how reliably the theory produces correct answers to a particular question that the researcher wishes to ask. For example, Newtonian physics is perfectly good for the engineer building bridges or the field commander shooting artillery, even though the theory has been falsified by experiments with relativity and might not be the best theory for someone planning an expedition to Mars.

The question the legal policymaker usually asks—which economic policy maximizes society's well-being?—may be quite different from the one that the economist is asking. The legal policymaker seeks answers to observed problems, and therefore desires economic policies that apply to the real world. In writing his famous essay, however, Friedman was concerned with two particular economic models which had come under widespread attack by institutionalists because of the *lack* of realism in the models' assumptions, namely, perfect competition and marginalism. The economic model of perfect competition is the best illustration of the problem. The model itself seems quite "unrealistic" when one looks at business firms in the real world. The model assumes that (1) firms produce a fungible product, so that consumers are indifferent as to whose product they are buying; (2) there are no economies of scale; (3) entry is absolutely free and can take place very quickly; and (4) all market participants have almost perfect information about market conditions.⁶⁵ In the real world, perfect competition is the exception rather than the rule, and a purist would probably conclude that perfect competition is nowhere to be found.

Nonetheless, economists almost universally concede that the perfect competition model is a powerful explanatory device. It derives power from the fact that given a particular goal, the model tends to suggest one particular policy to accomplish that goal. For example, if the goal is to determine the market conditions under which output will be high and

64. On instrumentalism in the sciences, see J. AGASSI, *TOWARDS AN HISTORIOGRAPHY OF SCIENCE* (1963); Lakatos, *History of Science and Its Rational Reconstructions*, in 8 *BOSTON STUDIES IN THE PHILOSOPHY OF SCIENCE* 91-136 (R. Buck & R. Cohen eds. 1971).

65. See Stigler, *Perfect Competition, Historically Contemplated*, 65 *J. POL. ECON.* 1 (1957).

price low, the model might suggest a policy of removing government controls that restrict entry. We might be able to conduct an empirical test showing that as government entry restrictions are eliminated in a particular industry, output tends to increase and price to fall. The model is also useful because it helps explain why certain industries do not perform as competitively as one would like—that is, because products are in fact differentiated and scale economies are very substantial.

C. Positive Methodology, Legal Policy, and Welfare

In the positive economic analysis of law, one takes a legal rule as given and predicts certain economic consequences from the enforcement of the rule. For example, someone might predict that a legal rule increasing the penalties for selling cocaine will increase cocaine's price. Fewer people will risk selling it, so the market will be less competitive, and the legal risks the sellers encounter are costs that will show up in the purchase price. Such a prediction is at least theoretically verifiable.

Suppose, however, the proposition to be tested is that "a legal rule penalizing child abuse increases welfare." From the standpoint of the legal policymaker, the rule seems relatively uncontroversial. Almost everyone would agree that legal rules forbidding child abuse are good ideas, although there might be some difference of opinion about what constitutes "abuse." For example, some people might disagree about whether parental spanking of misbehaving children is abusive.

It is not easy to verify or falsify the proposition that "a legal rule penalizing child abuse increases welfare" without making some assumptions that seem quite normative. First, orthodox Paretianism will not work. Pareto efficiency is achieved only if *all* people affected by the rule feel better off, yet child abusers will feel worse off under such a rule. We might use the substitute criterion of "potential" Pareto efficiency, or Kaldor-Hicks efficiency.⁶⁶ Under the Kaldor-Hicks criterion, a move is efficient if those who gain from the move are able to compensate the losers fully for their losses but still remain better off.

Kaldor-Hicks efficiency is a measure of welfare only if we give the term "welfare" a peculiar definition, quite different from that given by Paretianism. Paretianism imposes a unanimity condition on policy changes and requires no comparative assessment of subjective gains and losses. If one person states she is injured, no matter how slightly, then the proposed change is not a Pareto improvement. In contrast, Kaldor-Hicks requires that gains and losses be traded against each other, and this requires a common currency of welfare. Kaldor-Hicks accomplishes

66. Hicks, *The Foundations of Welfare Economics*, 49 *ECON. J.* 696 (1939); Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 *ECON. J.* 549 (1939).

this by assuming the constant marginal utility of dollars, and by assuming that a dollar gives as much utility to one person as to another.⁶⁷ Although this move from utility to dollars may solve some formal problems for the economist intent on measurement, it also creates some fairly extraordinary problems. Most importantly, it creates an *objective* category—wealth—that all too easily displaces welfare as a policy concern unless we are extremely careful to keep our definitions separate.

Wealth exists completely detached from persons. The more of it the better, no matter who has it. For example, Society *A*, in which one person has \$1,000,000 and nine others have \$1 each is wealthier than Society *B*, in which ten persons have \$100,000 each. Total wealth in Society *A* is \$1,000,009, while in Society *B* it is only \$1,000,000. Does this mean that Society *A* has more welfare, classically defined, than Society *B*? We can know this as a general proposition only if we know that (1) every person in these two societies derives exactly the same welfare from a dollar; (2) the incremental welfare value of each additional dollar is constant; and (3) aggregate welfare is nothing more than the sum of individual welfares. Clearly, we cannot positively know the truth of these assertions. Wealth maximization as a welfare criterion is normative by any standard that a positive economist would consider acceptably scientific. At least, this is so if we define welfare the way that it has traditionally been defined, as having something to do with how well off people perceive themselves. Once we move from orthodox Paretianism to wealth maximization, we have moved from positive science into ethics.

To be sure, wealth reflects market value, and market value is a function of subjective individual preferences. But wealth as the *aggregate* marketplace reflection of individual preferences is no different from the psychologist's observation of fear, pleasure, or pain as the result of a collection of observations of individual responses to stimuli. In fact, someone using wealth maximization as a welfare criterion does something that the psychologist is generally loath to do: aggregate welfare by merely summing up how much various persons have. For example, the psychologist would be unwilling to say that three children watching the circus collectively obtain three times as much pleasure as one child watching it, or that we can assume that one child watching the circus for thirty minutes will derive as much pleasure as the sum of three children watching for ten minutes each. Pleasure, which is a part of utility, does not come in a common currency that can be aggregated among persons.

Aggregation is not the only problem with welfare. Not only are Kaldor-Hicks efficiency and wealth maximization conceptually impossi-

67. See W. BAUMOL, *ECONOMIC THEORY AND OPERATIONS ANALYSIS* 378-80 (2d ed. 1965); P. SAMUELSON, *Constancy of the Marginal Utility of Income*, in 1 *COLLECTED SCIENTIFIC PAPERS OF PAUL A. SAMUELSON* 37-53 (J. Stiglitz ed. 1966).

ble to defend under positivist criteria, but even if we accept these theories as true, the measurement of welfare remains close to impossible. Welfare is affected by many nonmarket forces, and the positive rules of allocative efficiency are hard to apply in nonmarket situations. For example, child abuse is a nonmarket transaction: one generally does not purchase from a child (or from its parents) the right to abuse that child. For other commodities, of course, there may be an illegal market, such as the market for cocaine, and we can observe revealed preferences even if the market is not sanctioned by law. The illegality of the market, however, may make data-gathering difficult.

In the case of child abuse, no underground market exists where parents or children sell the right to have various acts of abuse committed upon the children. Or even if there were such a market, it is not a market that encompasses everything we define as child abuse. Most people probably think of child abuse as chiefly physical or mental abuse committed by parents or others, such as relatives, neighbors, day care personnel, or school teachers, against children. They would not limit the transactions called "child abuse" to the child pornography industry.

In that case, how does one go about verifying or falsifying the proposition that "a legal rule against child abuse increases welfare"? One would have to compare the losses of the criminal to the gains of the potential victim (or perhaps the victim's parents). But in this case neither of these things is reflected in a market that comes close to measuring the value of what is lost and gained. It is also difficult to come up with shadow prices. For example, we could hardly make an empirical study of how much compensation from an alternative use of time would cause the offender to spend less time molesting children and more time in the alternative activity.

Those who espouse Chicago-style law & economics have traded away a broad concept of "well-being" based in the social sciences for a narrow concept—wealth maximization—based on market preferences. The justification for the exchange is that welfare-as-wealth-maximization can, in theory, be measured cardinally as it is transferred from one person to another, and aggregated over society. In fact, however, law & economics scholars have selected a poor surrogate for welfare, as we ordinarily think of that term, and the gains in measurability are largely an illusion.

III

ON MEASURING THE RELATIONSHIP BETWEEN LEGISLATION AND WELL-BEING

The second criticism of Chicago School law & economics is that neither wealth maximization nor any other version of allocative efficiency

captures all that the legislative policymaker means when she speaks of the welfare, or well-being, of individuals in the legal community. Limiting welfare to wealth maximization amounts to a hopelessly impoverished view of well-being.

A. Legal Instrumentalism and Well-Being

1. Problems of Definition

Even assuming that the legal policymaker is both a positivist and an instrumentalist, her goals and concerns are quite different from the economist's. As a result, both her model and her methodology may also differ. The legal policymaker supposedly wishes to adopt legal rules that are best for the community governed by the rules. "Best," in this context, means that the legal rules in some fashion maximize the well-being of the community's members.

In the abstract, welfare consists of desires or preferences that each individual associates with being happy or well off. Unfortunately, these desires or preferences cannot be measured by an outside observer, certainly not in any way that permits the observer to quantify and compare one individual's preferences with those of another. The scientific observer must therefore use surrogates. Under a strictly positivist methodology, however, what cannot be observed or measured also cannot form either the subjects or predicates of propositions purporting to make assertions about the world. As a result, the surrogate becomes the entire *meaning* of the term "welfare" itself. Since *A* cannot observe or measure *B*'s subjective feelings, it becomes nonsensical to speak of welfare as a person's feelings. Consequently, the proposition "*A* is better off than *B*" has no scientific meaning other than a statement something like one of the following: (1) *A* has more money than *B*; or (2) *A* has possessions of greater market value than *B*; or (3) we have developed an instrumental definition of welfare based on scores on a certain test, and *A* has scored higher than *B* on this test.

Even a statement such as "*A* describes himself as happy while *B* describes himself as unhappy" would not yield the scientific conclusion that "*A* is better off than *B*." For *B*, in his stated misery, may nevertheless subjectively feel better than *A* in his stated ecstasy. We can never know. On the other hand, we could ask each of a thousand people to examine the world around her, assess her relative well-being, and rank it on a scale of one to ten, with explanations for the ranking. From this we might be able to draw conclusions such as "people who live in small towns describe themselves as better off than people who live in big cities," or "people with automobiles generally describe themselves as better off than people without them," or "home ownership appears to contrib-

ute more to a person's stated sense of happiness than does speedboat ownership."

Such a conception of well-being has a *distributive* content that is simply not captured by the economic theory of revealed preference. That is, in assessing their well-being, people compare themselves with others with whom they feel similarly situated. The social science literature on this point is wide and consistent: in assessing their own well-being, people invariably do make comparative judgments.⁶⁸ As a result, the existing wealth of the surveyed group is as important as the marginal gains or losses. This conclusion further implies that the sociologist or psychologist studying such comparative judgments can purport to say something "scientific" about the distribution of wealth that the economist cannot. The economist, even the welfare economist, all too quickly proclaims questions about efficiency to be positive, and questions about distribution to be purely normative. In fact, it all depends on whose positivism one accepts.

The objective, distributive concept of well-being certainly seems to capture something that neoclassical welfare economics does not. In fact, the notion that well-being is a *comparative* concept seems quite essential to legal policymaking, with its concerns about discrimination. The state cannot give each person as much as he or she wants, but rather must treat them as equals.

The duty of equal treatment is a welfare goal. Is there much doubt, for example, that a woman's sense of well-being may be affected not merely by her absolute earnings, but also by whether she earns the same amount as a male performing the same work?⁶⁹ That a black school child's sense of well-being depends not merely on the absolute quality of his educational opportunities, but also on how those opportunities compare with those of white children? That taxpayers are concerned not merely with the absolute amount they must pay, but also with their relative burden compared to others? Positivist economists generally ignore such comparative judgments. But the legal policymaker must consider these judgments if they form part of the content of subjective well-being. As is argued below, the effect is that a proposition that has become a commonplace in neoclassical economics—that efficiency (welfare) and

68. Examples include J. BAXTER, *SOCIAL AND PSYCHOLOGICAL FOUNDATIONS OF ECONOMIC ANALYSIS* 99-114 (1988); F. CROSBY, *RELATIVE DEPRIVATION AND WORKING WOMEN* (1982); H. LEIBENSTEIN, *BEYOND ECONOMIC MAN: A NEW FOUNDATION FOR MICROECONOMICS* 48-67 (1976); *SOCIAL COMPARISON PROCESSES: THEORETICAL AND EMPIRICAL PERSPECTIVES* (J. Suls & R. Miller eds. 1977); Crosby & Gonzelez-Intal, *Relative Deprivation and Equity Theories: Felt Injustice and the Undeserved Benefits of Others*, in *THE SENSE OF INJUSTICE* 141-66 (R. Folger ed. 1984); Reingen, Foster, Brown & Seidman, *Brand Congruence in Interpersonal Relations: A Social Network Analysis*, 11 J. CONSUMER RES. 771-83 (1984).

69. See Crosby & Gonzelez-Intal, *supra* note 68.

equity must be traded against one another—states the relationship incorrectly. In fact, increases in equity often yield increases in welfare.

The instrumentalist legal policymaker, selecting among empirical welfare measures, must ask the same difficult question that the instrumentalist economist must ask. Both must question whether one surrogate serves better than another, perhaps because it comes closer to defining our notion of welfare for the instrumentalist purpose of lawmaking, or perhaps because it is easier for the legal policymaker to measure.

Many positivist economists since the 1930s have insisted that the only useful empirical measure of welfare is observed consumer willingness to pay for something.⁷⁰ The modern neoclassical model of consumer price theory and welfare economics is based on observations or theories about consumers' willingness to commit part of their money for a particular good or service. This welfare criterion purports to measure subjective well-being only to the extent that it provides information about how individuals rank market priorities. For example, if apples and pears both cost a dime, both are equally convenient to purchase, and Arthur buys one apple rather than one pear, we can conclude in some meaningful sense that "a single apple gives Arthur more welfare than a single pear." For some purposes, this conception of welfare is quite useful, particularly when the economist is evaluating market transactions, but the proposition has certain limitations. For example, it does not tell us how Arthur will spend his second dime, or, more generally, what Arthur's utility curves for apples and pears look like. Suppose that Arthur already has a dozen apples, and one additional dime. Will he now spend the dime on an apple, a pear, or something else?

Moreover, the surrogate says nothing about the "preferences" of Doris, who has no dime in the first place. She may also feel a preference for apples over pears, or vice versa, but the preference will not be reflected in the market. The whole notion that people make comparative judgments in assessing their own well-being implies that what they *cannot* buy is as important to determining their welfare as what they elect to purchase. For methodological reasons, the economist may be entitled to decide that Doris' preferences are not to be counted in the measure of welfare. Is the legal policymaker also bound by the same methodology, and driven to the same choice? The conclusion that the policymaker cannot ignore Doris' preference is assuredly normative, but so is the economist's conclusion that one can forget about Doris' unexercised preference in an attempt to measure welfare.

The positivist economist might insist that the policymaker ignore

70. See, e.g., I. LITTLE, A CRITIQUE OF WELFARE ECONOMICS (1950); Samuelson, *Consumption Theory in Terms of Revealed Preference*, 15 *ECONOMICA* (n.s.) 242 (1948).

Doris' preference because, after all, the preference cannot be observed: Doris, being dimeless, makes no purchase in the market. But Doris' preference is unmeasurable only if the legal policymaker must accept the economist's market purchase surrogate for estimating preferences. If Doris' preference can be measured by some other means—derived perhaps by a psychologist or sociologist—then perhaps the policymaker can consider it.

2. *Methodological Constraints*

The positivist economist's paradigm of observed market preference also presents methodological problems. Although *observed willingness to pay* is the economist's defined basis for measuring welfare,⁷¹ *observed actual payment* is what nearly all empirical data actually measure. That is, when Susan purchases an automobile for \$12,000, we can quite easily conclude that the automobile produced at least \$12,000 in welfare for Susan. Or, to look at it another way, Susan preferred the automobile to any other combination of \$12,000's worth of goods and services that she might have purchased instead. What the observation does *not* tell us, however, is whether Susan would have purchased the automobile had its price been \$13,000, \$17,000, or \$20,000. Did she value the automobile much more than, for example, a \$12,000 sailboat, or only slightly more? Economists have devised some sophisticated techniques for measuring the relationship between consumer response to price change and consumer willingness to pay. In general, however, the techniques have proved to be more useful in theory than in practice. They are unreliable and difficult to apply without collecting large amounts of empirical data.⁷²

Furthermore, one of the assumptions of such techniques—namely, that a person who is willing to pay a certain amount for an entitlement would be willing to accept about the same amount in order to give the entitlement up—has been called into question by recent studies. For example, if a person would be willing to pay \$1000 for medical care but would not accept less than \$3000 to give up an entitlement to such care that he already had, then willingness-to-pay techniques become entirely indeterminate.⁷³

71. See, e.g., R. POSNER, *supra* note 37, at 15 ("[T]he term wealth as used by economists is not an accounting concept; it is measured by what people would pay for things (or demand in exchange for giving up things they possess), not by what they do pay for them.").

72. See R. WILLIG, *CONSUMER'S SURPLUS: A RIGOROUS COOKBOOK* (Institute for Mathematical Studies in the Social Sciences, Tech. Rep. No. 98, 1973); Willig, *Consumer's Surplus Without Apology*, 66 AM. ECON. REV. 589, 589 n.1 (1976). For some of the extraordinary measurement difficulties, see R. JUST, D. HUETH & A. SCHMITZ, *supra* note 62, at 97-115.

73. See Hovenkamp, *Legal Policy and the Endowment Effect*, 20 J. LEGAL STUD. (forthcoming 1991); Hovenkamp, *supra* note 53; Knetsch, *The Endowment Effect and Evidence of Nonreversible*

If it were possible to plot precisely consumer willingness to pay, we would still not be measuring subjective well-being. Two people with precisely the same willingness to pay may have very different utility functions. For example, one may have more money than the other and thus be willing to pay more for a good, even though the good provides him with less utility. The utility he gets from the money he pays for the good is even lower.

Observed payment is, therefore, at best an estimate of subjective well-being two times removed. First, in most cases, it does not measure observed willingness to pay, but rather measures observed actual payment. Second, even willingness to pay is not the same thing as welfare. As an example, suppose that the legal policymaker observes that when a college education is priced at its full cost, children from wealthy families tend to go to college and children from poor families tend not to go. To what extent can she deduce that the rich children obtain more utility or happiness from a college education, or that society is better off if only the rich and not the poor go to college?

In this case, we observe actual payment by the wealthy and actual nonpayment by the poor. Therefore, we do not need to worry about absolute willingness to pay, or consumers' surplus, in order to conclude that the rich are willing to pay more for education than the poor. This should be a relatively easy case for the positivist economist, who would conclude that welfare is greater when the rich, but not the poor, go to college. Some welfare economists may be tied to this judgment, but the legal policymaker—even the "positivist" legal policymaker—is not.

C. *Toward a Positive Methodology of Legal Policy*

Legal philosophers, whose positivism is far more institutionalist than that of economists, have generally rejected wealth maximization as a suitable welfare principle for evaluating legal rules. They find it too reductionistic.⁷⁴ The principle of wealth maximization simply seems not to account for everything that human beings feel, or for what motivates them to act and for which legal rules are relevant. Utilitarianism seems more useful than wealth maximization, simply because the concept of utility accounts for human welfare much more comprehensively than does the concept of wealth maximization. Importantly, in making this choice, the legal philosopher consciously trades away something very

Indifference Curves, 79 AM. ECON. REV. 1277 (1989); see also Simon, *Rationality in Psychology and Economics*, 59 J. BUS. S209, S213 (1986) ("Contemporary neoclassical economics provides no theoretical basis for specifying the shape and content of the utility function, and this gap is very inadequately filled by empirical research using econometric techniques.").

74. See, e.g., J. COLEMAN, *supra* note 12, at 95-132; Dworkin, *Is Wealth a Value?*, 9 J. LEGAL STUD. 191 (1980); Dworkin, *Why Efficiency?*, 8 HOFSTRA L. REV. 563 (1980).

important: the measurement of utility is far more difficult than the measurement of wealth, since interpersonal comparisons of cardinal utilities are generally impossible.

The legal positivist may prefer utilitarianism to wealth maximization because she regards jurisprudence as a science that is broadly social, or communitarian. Economic positivists tend to regard economics as a fundamentally formal science that is only narrowly social. Broadly social sciences must tolerate a greater amount of uncertainty than do the other sciences. To say that law is "broadly" social is to say that law has the obligation to account in some way for the entire range of human actions and perceptions—difficulties of measurement notwithstanding. The law may do this through the use of surrogates. For example, it may infer intent from acts, or infer happiness from income, employment, or health. No broad category of human actions or values may be deemed irrelevant to legal policymaking, however. Economics, by contrast, is "social" in a much more restrictive and idiosyncratic sense. It is concerned with people's observed value preferences as they are exercised in a market.

Gary Becker and other economists have attempted to define large areas of human nonmarket behavior as "economic," and analysis of this sort is an important contribution of the law & economics movement.⁷⁵ But in the process of such broadening, economics gives up part of its claim to being a positive science, as well as part of its claim to precision of measurement. When the subject of an involuntary transaction is divorce, theft, rape, pollution, libel, fraud, or driving while intoxicated, the result of an economic analysis is much more likely to be explanation than prediction. Further, the welfare effects of legal rules are much more difficult to estimate than the welfare effects of economic rules. This is particularly true if the parties are not business firms whose injuries are easily measured in dollars.

The development of positivism as a methodology for economics was driven strongly by a desire to emulate the methodology that had accounted for so much progress in the natural sciences since the time of Darwin. As Friedman put it, "positive economics is, or can be, an 'objective' science, in precisely the same sense as any of the physical

75. See G. BECKER, *THE ECONOMIC APPROACH TO HUMAN BEHAVIOR* (1976); G. BECKER, *A TREATISE ON THE FAMILY* at ix (1981); Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968). On such enterprises generally, see Posner, *The Law and Economics Movement*, 77 AM. ECON. REV. PAPERS & PROC. 1 (1987); see also D. PYLE, *THE ECONOMICS OF CRIME AND LAW ENFORCEMENT* 29-88 (1983); Ehrlich, *Participation in Illegitimate Activities: An Economic Analysis*, in *ESSAYS IN THE ECONOMICS OF CRIME AND PUNISHMENT* 68, 69-70 (G. Becker & W. Landes eds. 1974); Hirshleifer, *The Expanding Domain of Economics*, 75 AM. ECON. REV. 53 (1985).

sciences.”⁷⁶ It is nonetheless worth considering whether the natural sciences and the social sciences can accurately be assigned a common methodology. One important difference is that in the natural sciences only one substantively relevant viewpoint can be considered: that of the observer. But in the social sciences, two subjective viewpoints are relevant: that of the observer, and of the observed.⁷⁷ The inevitable consequence of applying positivist methodology to the social sciences is to make the second viewpoint irrelevant.

The positivist social scientist cannot observe the subjective viewpoint of the person whose values or actions are under consideration, so she disregards it. In this sense, the development of positivism in the social sciences was a rejection of the idea espoused by some pre-positivists, such as psychologist William James, that one could use introspection and a certain amount of analogy to draw scientific conclusions about individual values and preferences.⁷⁸ Quite simply, the positivist social scientist declares: “I can never have evidence proving that other people *think* as I do; I can verify only that under certain circumstances they *act* as I do.”

To the positivist social scientist, such as James’ contemporaries L.L. Bernard in sociology or John B. Watson in psychology, the only information that counts is what is “external,” or observed. For example, the positivist psychologist cannot measure another person’s psychological anguish or pain, but she can measure screams, sleeplessness, or eating habits.⁷⁹ Similarly, the economist cannot measure subjective perceptions of well-being, but she can measure preferences that are exercised through purchases in the marketplace.

In short, both economists and social scientists use surrogates for the subjective viewpoints or feelings of the observed. Importantly, *all* these methodologies are positive within the constraints on science imposed by the discipline at hand. Note, however, that the surrogates for welfare used by the psychologists and sociologists are quite different from the

76. M. FRIEDMAN, *supra* note 4, at 4.

77. See F. KNIGHT, *ON THE HISTORY AND METHOD OF ECONOMICS* (1963); P. WINCH, *THE IDEA OF A SOCIAL SCIENCE AND ITS RELATION TO PHILOSOPHY* (1958); Coddington, *Positive Economics*, 5 CAN. J. ECON. 1 (1972).

78. 1 W. JAMES, *PRINCIPLES OF PSYCHOLOGY* 185 (1890); see also Moore, *Behavior vs. Introspective Psychology*, 30 PSYCHOLOGICAL REV. 235, 235 (1923); Washburn, *Introspection as an Objective Method*, 29 PSYCHOLOGICAL REV. 89, 89 (1922).

79. L.L. BERNARD, *THE TRANSITION TO AN OBJECTIVE STANDARD OF SOCIAL CONTROL* (1911); J. WATSON, *BEHAVIORISM* 6-18 (1924); J. WATSON, *PSYCHOLOGY FROM THE STANDPOINT OF A BEHAVIORIST* 194-230 (1919); Bernard, *The Objective Viewpoint in Sociology*, 25 AM. J. SOC. 298, 299 (1919); see also J. Dewey, *HOW WE THINK* (1910); W. McDUGALL, *AN INTRODUCTION TO SOCIAL PSYCHOLOGY* (1909); M. MEYER, *THE FUNDAMENTAL LAWS OF HUMAN BEHAVIOR* (1911); I. PAVLOV, *CONDITIONED REFLEXES* (1927); A. WEISS, *A THEORETICAL BASIS OF HUMAN BEHAVIOR* 3-9 (1925).

surrogates for welfare used by the economists. The question of whether the legal policymaker must use one set of surrogates exclusively, or must prefer one set over another, lies at the heart of any analysis of the legitimacy and the scope of law & economics.

The most important premise of law & economics is that only the economists' set of surrogates count. There may be a weaker version of this premise, namely that the economists' conception of welfare must carry greater weight than the conception of the psychologist, sociologist, or other social scientist—perhaps because the economist's conception is more capable of precise measurement. Either premise runs into two very strong obstacles. First, in order to facilitate precision of measurement, economists must define welfare idiosyncratically, in a way that fails to capture what the legal policymaker has in mind. Second, even economists who use this redefined concept as a surrogate for welfare have realized the promised precision of measurement much more in theory than in practice.

For example, suppose that the state takes \$1000 annually from *A*, who is wealthy, in order to provide an income supplement to *B*, who is impoverished. Once or twice annually, *A* complains about high taxes, but she continues to drive her Mercedes and live in her large home. She does not even give up her gardener. Her health is not noticeably affected. About the only real difference we can observe is that her substantial annual contributions to her savings accounts and investments or charitable contributions are reduced by \$1000 per year.

B, on the other hand, appears greatly affected by the additional income. She is now able to sleep at night without worrying about feeding her children. For the first time, she is able to purchase an automobile, or perhaps go to night school. She moves into a better apartment, which has more room and better heat.

An orthodox Paretian welfare economist would say that the welfare content of the above transfer is ambiguous. At least one person, *B*, is made better off by the transfer, but at least one other person, *A*, is made worse off. Therefore, the transfer is not a Pareto improvement. A wealth maximizer would say that the transfer is neutral, for *B* received precisely as much wealth as *A* gave up. If one includes the effects of incentives—for example, if this is a tax on income, *A* will work less hard—then the transfer is inefficient. Furthermore, if the costs of administering this wealth transfer program are anything above zero, as they almost certainly are, then the wealth transfer program is even more inefficient. The resources used to run the program, or used by those attempting to comply with the program, could be put to better use elsewhere.

Now suppose that a famous psychologist, Etienne Doorknob,

devises the Doorknob Test for Subjective Personal Well-Being. The Doorknob test consists of a series of questions, a problem-solving session, a blood test, a sleep test, and a physical checkup. The test ranks persons on the basis of a number of factors that purport to relate to how "well off" a person feels, measuring both her absolute happiness and her well-being in comparison with other members of society. The test is scored from 1 to 100, and each point is presumed to represent one unit of well-being. The units of well-being are presumed to be constant. Thus, a move from a score of 16 to 17 on the test is presumed to show an increase in absolute well-being of the same magnitude as a move from 88 to 89.

Doorknob administers his test to a large sample of people in *A*'s position before and after the above wealth-transferring legislative program takes effect. After accounting for other factors, Doorknob concludes that as a result of the payment, well-being among this group declines from 90.2 to 89.9 Doorknob points. This decline is too small to be adjudged significant. Doorknob also administers the test to a large sample of people in *B*'s position and finds that, on average, their score moves from 16 Doorknob points before the program takes effect to 49 points afterward. This 33-point increase is quite substantial. On balance, Doorknob concludes, the legislative program has increased net welfare a great deal.

The welfare economist will have many critical things to say about the Doorknob test:

- (1) There is no way to verify that Doorknob points actually measure welfare, which is properly defined as the subjective sense of well-being. At best, the test produces (a) information about how people think they feel in comparison to others, which is not an empirically verifiable comparison; and (b) objective information about health or anxiety that an external observer of large groups of people might presume is related to welfare. Ultimately, however, we can never verify any relationship between, for example, a person's stress level as measured by her blood pressure, and her subjective welfare.
- (2) The Doorknob test is not a *precise* measure of anything. If it is a measure at all, it is only a measure of someone's idea about the content of welfare, and this is a very pliable concept.
- (3) The Doorknob test arbitrarily sets 100 points as the largest amount of welfare a person can have, and assumes that everyone has the same total capacity for welfare.
- (4) The Doorknob test generalizes about the welfare of a large group of people, while welfare properly defined is a highly individual criterion.
- (5) Even assuming a positive correlation between subjective welfare and Doorknob points, the test makes an unwarranted assumption that this relationship is linear—i.e., that each Doorknob point anywhere on the scale measures the same increment in welfare. For all we know, how-

ever, *A*'s decrease of 0.3 Doorknob points in the above illustration represents more welfare than *B*'s 33-Doorknob-point increase.

Each of these criticisms has some merit. But each applies equally to the Doorknob test and to the accepted methodology of applied welfare economics.

First, observed consumer behavior or even observed willingness to pay is not the same thing as observed subjective welfare, but, rather like each element of the Doorknob test, it is only a surrogate. Such observations tell us only how people rank priorities given the amount of resources they possess. Observed consumer behavior says nothing about the absolute happiness or satisfaction of an individual, or about the comparative satisfaction experienced as between two individuals.

Second, while it is certainly true that we can never establish a precise "fit" between the Doorknob test and "actual" well-being, it is also true that the positivist economist can never establish a precise fit between well-being and revealed market preference. Which "fit" is better? That question is purely normative, and can be answered only by deciding whether we should consider only people's existing wealth in measuring their well-being, as revealed preference theory does, or whether preferences should be considered independently of existing wealth.

The best argument for considering only people's existing wealth in measuring their well-being is that it provides a more rigorous basis for measurement. But this argument does not survive close inspection. It throws away a great deal that is of value, for something small in return. Intuitively (i.e., from introspection), it seems that the concept of well-being includes many things not captured by the term "wealth." People can have preferences, even strong preferences, that are never exercised in the marketplace because those who have the preferences lack sufficient wealth to act upon them. Thus, whatever the ease of measurement, wealth maximization as a welfare surrogate presents such a limited view of the world that it undermines the legal policymaker's purpose in measuring preferences at all.

One defense of law & economics is that other social sciences, such as psychology, have not come nearly as far in providing quantifiable justifications for legal rules.⁸⁰ It is difficult to know what to make of this criticism. Some critics assert it baldly, as if its truth were a matter of common knowledge, which it certainly is not. The nature of the argument seems to be that alternative social sciences simply do not have the same explanatory power that economics has when it comes to accounting for legal rules. If that is so, then it is difficult to understand what

80. See, e.g., R. POSNER, *supra* note 37, at 16; Posner, *The Decline of Law as an Autonomous Discipline: 1962-1987*, 100 HARV. L. REV. 761, 769 (1987).

"explanatory power" means, since welfare economics establishes no empirical link between revealed preference and subjective well-being. One might argue that economics "predicts" better than do other social sciences, but it is unclear what is being predicted.

The proposition that economics is superior to other social sciences in supplying after-the-fact explanations for legal rules certainly seems more plausible when the relevant actors are business firms and we assume profit maximization. In such a case, economics obviously provides better explanations because the economist's working assumption, profit maximization, is built into the model itself. When the actors are consumers who maximize utility rather than profits, this claimed superiority vanishes. At this point, the relative explanatory power of legal models depends entirely on how one states the propositions. For example, sociology probably does as well as economics at "explaining" equal protection and civil rights law, why sexual relations with animals is illegal, or why the certainty of incarceration deters more effectively than do long prison sentences with less certainty. Psychology probably does as well as economics at "explaining" freedom of speech and religion, the right not to testify against oneself, why marriage is not a matter of simple contract law, or why trespassory acts by the government are "takings" even if the economic damage is small, while government regulation often does not constitute a taking even when the economic damage is severe.⁸¹ One might wish to dispute any one of these propositions, but my point is simply that it is not obvious that law & economics has superior explanatory power or that it thus provides a more precise fit between its observations and the concept of well-being than do other social sciences.

Third, a very important difference between the welfare economist's test based on revealed market preference and the Doorknob test is that the economist measures welfare by starting with a person's existing resources. Each person is assigned as many points as he has dollars, or income-producing capacity. In the Doorknob test, everyone arbitrarily starts with 100 points, but, importantly, everyone starts with the *same* number of points. Whether the number is 10, 100, or 1000, is irrelevant.

Is one premise a more scientific measure of subjective well-being than the other? Or, to put the question in more instrumental form, is one premise better than the other for those engaged in legal policymaking? Neither assumption is verifiable or falsifiable; both are strictly normative. The proposition that all people have the same capacity for experiencing happiness or pleasure may strike us as implausible. But the proposition

81. See, e.g., *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982) (little or no injury; trespassory taking); *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104 (1978) (burdensome regulation; no taking); see also Ellickson, *Bringing Culture and Human Frailty to Rational Actors: A Critique of Classical Law-and-Economics*, 65 CHI.-KENT L. REV. 23, 38 (1989).

that a person's capacity for experiencing happiness or pleasure is directly proportional to her wealth or income seems at least as implausible. Further, the first proposition intuitively seems to be more consistent with democratic theory: Whether people actually have the same capacity for experiencing happiness or pleasure, the state should treat them as if they do.

Fourth, the economist might criticize the Doorknob test because it generalizes about the welfare of a large group of people, while welfare is properly defined as individual subjective preference. A number of points must be made about this observation. To the extent that applied welfare economics relies on empirical data and samples from many instances of consumer behavior, it also aggregates people into large groups and generalizes about them. In addition, the legal policymaker considering a proposed statute or legal rule *must* generalize over large groups. Generalization is inherent in the nature of the policymaker's role. Finally, the economist's supposition that people's measure of subjective welfare is purely individualistic is itself unverifiable, nonnormative, and very likely wrong. A good deal of evidence suggests that (1) people evaluate their welfare by comparing their situation to that of others; (2) people make different preference choices when they take the imagined welfare of others into account; and (3) people's judgments about what they want are socially conditioned.⁸²

Fifth, Doorknob's assumption that test points measure constant "units" of subjective welfare is completely unwarranted empirically, but so is the assumption of Kaldor-Hicks efficiency generally used by welfare economists. Kaldor-Hicks assumes that the marginal utility of income is constant, and that a dollar creates the same amount of welfare in one person as in another.⁸³ These assumptions are without any empirical foundation.

IV

THE RHETORIC OF TRADING OFF

Within the neoclassical law & economics paradigm, one can certainly have equity, but increases in equity must always be paid for with decreases in efficiency. This conclusion that efficiency and equity must be traded against each other is one of the great *tours de force* of the law & economics movement. The rhetoric has been so successful that even some liberal social scientists writing in support of the welfare state

82. See sources cited at note 68, *supra*.

83. See Samuelson, *Constancy of the Marginal Utility of Income*, in *STUDIES IN MATHEMATICAL ECONOMICS AND ECONOMETRICS IN MEMORY OF HENRY SCHULTZ* 75-91, (P. Lange & F. MacIntyre eds. 1942); Silberberg, *Duality and the Many Consumer's Surpluses*, 62 *AM. ECON. REV.* 942, 950-51 (1972).

assume the necessity of such a tradeoff. These scientists have been relegated to arguing merely that the tradeoff is not all that expensive.⁸⁴

Within this tradeoff paradigm, efficiency is presented as an entirely positive, or scientific, concept. Welfare is identified with efficiency. Both efficiency and welfare refer to how big the pie is, but say nothing about how to divide it. Contrasted with this scientific idea of efficiency is a collection of purely normative concepts of equity, or fairness.⁸⁵ Whenever the state intervenes in the market in order to achieve its (purely normative) notion of equity, a certain amount of (strictly positive) efficiency will be lost. When one adds to this rhetoric the suggestion, now a commonplace in Chicago-style law & economics, that legislative debates about equity always deteriorate into fights among interest groups for the biggest portion of a pork barrel, the implications are obvious. One can have either efficiency, which is "scientific," or else a hodgepodge of inefficient distributive rules whose only explanations are purely political. Even the ethical claims of those concerned with equity are thus undermined.⁸⁶

The legal policymaker must consider both efficiency and equity. The conclusion that they must be traded off against each other, however, is far from clear. Even if tradeoffs are necessary, they are not the bargains that the rhetoric of law & economics assumes. The relationship between efficiency and equity is far more complex. First, the whole notion that efficiency and equity must be traded against each other is based on a series of normative suppositions. Exactly how normative and how controversial these suppositions are has generally been hidden from the legal policymaker by the language of positive science that attends law & economics. Indeed, before the ordinalist economists of the 1930s convinced us of the impossibility of quantifying and comparing interpersonally utility functions, welfare economists in the neoclassical tradition believed, quite to the contrary, that more equity implied *more* welfare. This supposition flowed from the assumption that the marginal utility of a dollar in the hands of the poor was greater than the marginal utility of a dollar in the hands of the wealthy.⁸⁷

For those who believe that interpersonal comparisons of utility are strictly impossible, the major premise of this argument has been undermined, but no other premise has been substituted in its place. The common assumption that a dollar produces the same marginal utility in

84. See, e.g., R. GOODIN, REASONS FOR WELFARE: THE POLITICAL THEORY OF THE WELFARE STATE 227-56 (1988).

85. See A. OKUN, EQUALITY AND EFFICIENCY: THE BIG TRADEOFF (1975).

86. See Hovenkamp, *Legislation, Well-Being and Public Choice*, 57 U. CHI. L. REV. 63 (1990).

87. See, e.g., A. PIGOU, THE ECONOMICS OF WELFARE (3d ed. 1929); Hovenkamp, *supra* note 25, at 1000-12.

everyone, regardless of wealth, is equally unjustified and quite contrary to the subjective experience of most individuals. Any defense of this assumption is purely normative.

Alternative assumptions can yield quite different pictures of the efficiency-equity tradeoff. For example, the legal policymaker who assumes an inverse correlation between wealth and marginal utility—i.e., that the person with twice as much wealth as another derives half as much marginal utility from an additional dollar—would be making an assumption that is neither less “scientific” nor more normative than the assumption of universal constancy. Further, the assumption is probably more consistent with our subjective experience. Under that assumption, however, any notion that efficiency and equity must be traded against each other would vanish. The consequences for state policymaking would be astonishing. A policy of value maximization under the assumption of an inverse correlation between wealth and marginal utility of income would produce radical social levelling until everyone had the same wealth. In other words, maximum efficiency would be achieved only when there was complete equality.

As noted previously, Kaldor-Hicks assumes that each individual derives the same utility from a dollar of income, and that the marginal utility of income is constant.⁸⁸ We have no information about the first statement. We do have information about the second, and it suggests that the marginal utility of income is not constant at all, but declines as one's income increases.

If one indulges in two assumptions much more consistent with the evidence—namely, that each individual derives the same utility from his or her first dollar in income, and that the marginal utility of income declines, even if slightly—it can quite easily be shown that utility is maximized when wealth is equalized. This proposition was already known to neoclassical economists in the nineteenth century. An important corollary is that an equal distribution of income will maximize the expected utility of individuals who are behind a veil of ignorance and unsure of their position in the world.⁸⁹

For example, assume the utility to every person of the first dollar is U , of the second dollar $U-x$, the third dollar $U-2x$, and so on, where x is a positive number, no matter how small. Assume that each person has \$5, which gives utility equal to $5U-10x$, i.e., $(U + U-x + U-2x + U-3x + U-4x)$. At that point, if an additional dollar becomes available, and is given to A , he will derive $U-5x$ from it. A now has \$6 and $6U-15x$ utility;

88. See *supra* note 83 and accompanying text.

89. A. LERNER, *THE ECONOMICS OF CONTROL* 23-40 (1944); see also Olson, *Why Some Welfare-State Redistribution to The Poor Is a Great Idea*, in *DEMOCRACY AND PUBLIC CHOICE* 191 (C. Rowley ed. 1987).

the other members of society continue to have \$5. Now suppose yet another dollar becomes available. That dollar will give any person other than *A* $U-5x$ utility, but it will give *A* $U-6x$ utility. If one of the members of this society was impoverished, having only \$1, that additional dollar would give that person $U-x$ utility.

In short, if one accepts the Kaldor-Hicks assumption that an initial dollar produces the same amount of welfare in each holder, but modifies Kaldor-Hicks with the empirically robust assumption that each person experiences declining marginal utility, one could immediately show that total welfare is maximized when wealth is perfectly equalized. This is not a proposal for radical levelling, but merely an observation that the rhetoric of the equity-efficiency "tradeoff" depends on a purely normative, highly counter-experiential notion about the relationship between well-being and dollars, namely, that the marginal utility of income is perfectly constant, no matter how much wealth one possesses.

The welfare state should thus feel free to pursue at least a certain amount of economic equity without concern about the notion that *any* amount of equity comes at the price of total welfare. But at this point welfare economics must be supplemented with other kinds of analysis if the legal policymaker is going to take the problem of social well-being—a problem that necessarily includes distribution—at all seriously. If welfare economists can say nothing about the relationship between wealth and well-being, and thus about the *relative* marginal utility of dollars in the hands of different classes, then perhaps psychologists, sociologists, or even medical scientists can. In this case, all the rhetoric in the economics literature about the "precision" of economics as against the malleability of the other social sciences is both wrong and off the mark. It is preferable for the legal policymaker to have any kind of information, no matter how soft, than no information at all. The legal policymaker, unlike the academic, must make *some* kind of decision.⁹⁰ Although she might not know precisely how much the well-being of each individual will be improved by a dollar's worth of food rather than of jewelry, she can be relatively sure that most people satisfy their need for food first, at least up to some level, before they begin spending their money on jewelry. How precise must the legal policymaker's determination be before she decides that taxing the wealthy in order to feed the poor is a good thing? The fact that she cannot compute the optimal tax does not make the alternative of no tax optimal either.

Most economists would agree with the above proposition as a general matter. They would readily concede that the state lacks the information to determine such things as the optimal amount of protection for

90. See Burton, *Law as Practical Reason*, 62 S. CAL. L. REV. 747, 764-65 (1989).

property rights—for example, the extent of the property owners' right to be free from regulatory constraint, or the optimal length or scope of patent or copyright protection. Nonetheless, one would not then be justified in concluding that we should simply not protect property rights at all. The economist, more than almost anyone else, recognizes the need to acknowledge that policymakers must work under conditions of uncertainty. Estimation and generalization are inherent in the process. The policymaker can look only to the aggregation of evidence that she has before her, but all of it, from a variety of sources, is presumptively relevant. To this end, the relatively social positivism of law is a better tool for the legal policymaker than the relatively technical and narrow positivism of economics.

CONCLUSION

The legal policymaker who carries only welfare economics in his bag of tools is a little like the doctor who has only a stethoscope. He may be able to diagnose part of the problem, but he may not get all of it. In any event, he will be unable to do much about it except tell the patient that the condition will probably take care of itself.

Bruce Ackerman laments the poverty of welfare economics when he says that economists typically present "Pareto superiority . . . as if it were some form of self-evident truth whose mere utterance suffices to demonstrate its validity in the manner of Revelation."⁹¹ The result, Ackerman argues, is that the positivistic economist is ill-equipped to defend orthodox Paretianism as a matter of policy or philosophy.⁹² When it becomes apparent that Paretianism has almost no application to real world policymaking because its conditions are never satisfied, the economist quickly proclaims all policy decisions normative. "Beyond (unquestionable) Pareto superiority, there is nothing but a forest of subjective value judgments that have nothing to do with economics."⁹³

As a result, welfare economics is a poor tool if it is the only one the legal policymaker uses. Ackerman actually understates the problem. Within the Chicago School, it is not the uncritical acceptance of Paretianism that makes welfare economics unidimensional. Rather, it is the uncritical defense of Kaldor-Hicks efficiency as a positive methodology for legal analysis.

One of Ackerman's conclusions seems incontrovertible: judgments about efficiency are ultimately just as controversial as judgments about distribution.⁹⁴ To be sure, the scientific rhetoric of efficiency has been

91. B. ACKERMAN, *RECONSTRUCTING AMERICAN LAW* 83 (1984).

92. *Id.* at 83-84.

93. *Id.* at 84-85.

94. *Id.* at 91-92.

more successful in disguising its normative elements from the uninitiated than has the scientific rhetoric of equality. In fact, the rhetoric of equality has never been particularly scientific. Most of those who have spoken about it have understood from the beginning that they were engaged in normative discourse. Welfare economics is impoverished only when it is used by someone who fails to realize that its policy content is equally normative. More importantly, to the extent that Kaldor-Hicks purports to say anything about welfare, as most of us ordinarily use that term, it is blatantly normative—based on value judgments that have nothing, not even our intuition about well-being, to support them.