

Beyond Stamp Collecting: Ronald Coase and “Scientific” Legal Scholarship

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Ronald Coase, the Nobel laureate whose work is part of the foundation of modern law and economics, frequently quoted the British physicist Ernest Rutherford for the proposition that all science is either physics or stamp collecting.¹ Coase would add that the same is also true for all social science—it is either physics or stamp collecting, and most legal scholarship has been stamp collecting.² I would like to use this Essay to demonstrate two propositions: I would like to praise stamp collecting; but I would also like to show that legal scholarship has been physics long before Coase made his comments.

By stamp collecting, Coase meant the organization and classification of things—or as he put it, operating a filing system.³ A good part of the natural sciences has always involved classification and organization. The study of our planet and research about living organisms have depended upon adding to organized data. Geology,

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1. Ernest Rutherford, who died in 1937, made this statement during his lectures. It was not recorded. “[T]he epigram attributed to the late Sir Ernest Rutherford [is] that science consists only of ‘physics and stamp-collecting.’” Max Black, *A Lend-Lease Program for Philosophy and Science*, 61 *SCI. MONTHLY* 165, 168 (1945).

2. Coase frequently made these remarks in his lectures. He wrote the following in an essay in praise of the law and economics program at the University of Chicago:

Ernest Rutherford said that science is either physics or stamp collecting, by which he meant, I take it, that it is either engaged in analysis or in operating a filing system.

Much, and perhaps most, legal scholarship has been stamp collecting. Law and economics, however, is likely to change all that and, in fact, has begun to do so.

Ronald Coase, *Law and Economics at Chicago*, 36 *J.L. & ECON.* 239, 254 (1993).

3. *Id.*

biology, and medicine are fields in which classifications are essential. Physics depends on classifying and ordering data in order to find patterns and irregularities. The periodic table, an important part of chemistry and other natural sciences, is one of the greatest classification schemes of all time. Over the past few decades, genome-sequencing projects—which are technologically advanced filing systems—have been crucial to research in the life sciences.

A good part of the law and legal scholarship qualifies as stamp collecting. Although purely doctrinal scholarship has been decreasing in both prestige and publication by elite journals for decades,⁴ there is still much writing that analyzes cases by ordering them with other cases, even scholarship that some might consider non-doctrinal because they use methods from other disciplines to analyze cases. Contrary to Coase's implication, this is a desirable result. Classification is a way to bring order to what would otherwise be chaos. Even more importantly, classification permits reasoning by analogy, one of the primary types of legal analysis. With scores of cases relevant to an issue, coherent legal analysis would be impossible without some way to organize the cases.

Let me give two examples of how classification brings order to the law. Probably the best-known instance involves estates in land. Present interests in land include fee simple, fee tail, defeasible fees, life estates, and leaseholds. Under what is referred to as *numerus clausus*, the laws of the United States and European civil law countries limit new forms of ownership, in contrast to the variation and novelty of contracts allowed under contract law.⁵ The limitations on the forms of land ownership decrease the transaction costs of real estate transactions, which in turn provide social and economic benefits.

Classification is also important to antitrust law. In trying to clarify the meaning of § 1 of the Sherman Act, the Supreme Court gradually developed a dual classification of restraints on trade, characterizing

4. BRIAN Z. TAMANAHA, *FAILING LAW SCHOOLS* 56–57 (2012).

5. Thomas Merrill & Henry Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 *YALE L.J.* 1 (2002).

some as per se illegal while judging others under the rule of reason.⁶ This stamp collecting simplified the litigation of the most pernicious restraints like price fixing and market division agreements among competitors. Not only did this classification scheme reduce enforcement costs, it also gave clear signals to firms about the kinds of conduct to avoid.

As the economy became more complex, a dual classification system proved to be too inflexible for some cases, prompting the Supreme Court to make additional modifications. It crafted a middle category (called the “modified per se” rule) for a limited number of specialized agreements, established a subcategory of the rule of reason (the “quick look” rule of reason) for certain restraints that appear anticompetitive on initial examination, and created a formal process for funneling agreements into the appropriate category.⁷ The end result is a classification scheme with four categories and a funneling rule that makes it much easier to analyze the thousands of different types of economic agreements with a good degree of predictability. Without a scheme like this, the law of the Sherman Act would be uncertain and chaotic.⁸

Since both property law and antitrust law require classifications, it naturally follows that much legal scholarship in these fields would analyze the process of classification and the utility of the classifications themselves.⁹ This type of legal scholarship is stamp

6. Sherman Act, 15 U.S.C. § 1; Nat'l Soc. of Prof'l Eng'rs v. United States, 435 U.S. 79, 692 (1978).

7. See, e.g., Fed. Trade Comm'n. v. Actavis, Inc., 133 S. Ct. 2223 (2013) (quick look rule of reason); Nw. Wholesale Stationers v. Pac. Stationery & Printing Co., 472 U.S. 284 (1985) (modified per se rule); Broadcast Music, Inc. v. Columbia Broadcasting System, Inc., 441 U.S. 1 (1976) (funneling process).

8. The “quick look” rule of reason permits somewhat of a sliding scale in judging reasonableness, *Federal Trade Commission v. Actavis, Inc.*, 133 S. Ct. 2223, 2237–38 (2013), leading some scholars to see an evolution in the section 1 classification scheme into a spectrum rather than discrete standards. See, e.g., Jesse W. Markham, Jr., *Sailing a Sea of Doubt: A Critique of the Rule of Reason in Antitrust Analysis*, 17 *FORDHAM J. CORP. FIN. L.* 591, 661 (2012) (“Most observers agree that the Court dismantled the boundaries between categories of conduct in favor of a continuum; that ‘quick look’ and ‘full blown’ are merely part of a continuum between *per se* illegality at one end and efficient or competitively neutral conduct at the other.”).

9. See, e.g., Allison Dunham, *Possibility of Reverter and Power of Termination—Fraternal or Identical Twins?*, 20 *U. CHI. L. REV.* 215 (1953); Jesse W. Markham, Jr., *Sailing a*

collecting, but it is also useful scholarship that benefits lawyers and judges and advances our understanding of the case law. Although doctrinal scholarship has a bad name with many scholars these days, much of doctrinal scholarship has done more than organize cases in a filing system. In discussing the different approaches under conflicting cases, doctrinal scholars throughout the twentieth century have considered such aspects as creating incentives, fulfilling expectations, and recognizing the relevance of good faith and morality in advocating the approach of one line of cases over another.¹⁰ Recent doctrinal scholarship continues that tradition.¹¹

Before I explain why much legal scholarship is physics as Coase and Rutherford use the term, I want to say a little about science. There is far from any universal agreement about what makes something a science rather than part of the arts or the humanities. In my mind, science is a spirit of investigation and learning that attempts to advance our understanding of the world. At its core, it requires a search for theories and fundamental principles. Science also entails the rigorous use of methods in a collective enterprise, in which researchers build upon the works of those who came earlier. It is this collective, rigorous search for theories and underlying principles that distinguishes science from the arts and the humanities.¹²

Sea of Doubt: A Critique of the Rule of Reason in Antitrust Analysis, 17 *FORDHAM J. CORP. & FIN. L.* 591 (2012).

10. An example of this type of doctrinal scholarship is a note from 1938 that resolves the problem of circularity of mortgages (in which there is no priority of competing mortgages under standard principles) by trying to fulfill expectations and create incentives. Note, *Circularity of Liens—A Proposed Solution*, 38 *COLUM. L. REV.* 1267 (1938). George Priest has described this type of scholarship as “reflecting a partial economic basis.” George L. Priest, *The Growth of Interdisciplinary Research and the Industrial Structure of the Production of Legal Ideas: A Reply to Judge Edwards*, 91 *MICH. L. REV.* 1929, 1933 (1993).

11. Just to take one author as an example, Richard Helmholz, who is one of the preeminent legal historians of our age, has written three doctrinal articles concerning property law in which he examines the non-doctrinal factors that drive court outcomes. See Richard H. Helmholz, *Bailment Theories and the Liability of Bailees: The Elusive Uniform Standard of Reasonable Care*, 41 *U. KAN. L. REV.* 97 (1992); Richard H. Helmholz, *Wrongful Possession of Chattels: Hornbook Law and Case Law*, 80 *NW. U. L. REV.* 1221 (1985); Richard H. Helmholz, *Adverse Possession and Subjective Intent*, 61 *WASH. U. L.Q.* 331 (1983).

12. ROBERTA CORVI, AN INTRODUCTION TO THE THOUGHT OF KARL POPPER 42, 125 (Patrick Camiller trans., 1997); Thomas S. Kuhn, *The Structure of Scientific Revolutions*, in 2 *INTERNATIONAL ENCYCLOPEDIA OF UNIFIED SCIENCE* 1, 23 (Otto Neurath et al. eds., 1970);

Social science is as much science as natural science. Prior to the nineteenth century, few would have distinguished natural from social science. As Friedrich Hayek has written:

During the first half of the nineteenth century . . . [t]he term *science* came more and more to be confined to the physical and biological disciplines which at the same time began to claim for themselves a special rigorousness and certainty which distinguished them from all others. Their success was such that they soon came to exercise an extraordinary fascination on those working in other fields, who rapidly began to imitate their teaching and vocabulary. Thus the tyranny commenced which the methods and techniques [of the natural sciences] have ever since exercised over the other subjects. [Social scientists] became increasingly concerned to vindicate their equal status by showing that their methods were the same as those of their successful sisters rather than by adapting their methods more and more to their own particular problems [T]his ambition to imitate [natural] Science in its methods rather than its spirit has now dominated social [science].¹³

Hayek wrote these remarks over sixty years ago, but they ring just as true today. Mathematics dominates economics. Quantitative methods are becoming dominant in political science. That is fine, so long as the methods are used in the search for theories and underlying principles, and not just in a glitzy demonstration of method. Robert Fogel, a Nobel laureate in economics, has emphasized that not all mathematics is theory and that not all theory is mathematics. Noting the fascination with economic theories that are “intellectually elegant,” Fogel wrote that “abstract models [are not] an end in

Derek J. de Solla Price, *Of Sealing Wax and String*, 93 NAT. HIST. 48, 49–56 (1984); Thomas S. Ulen, *A Nobel Prize in Legal Science: Theory, Empirical Work, and the Scientific Method in the Study of the Law*, 2002 U. ILL. L. REV. 875 (2003).

13. F.A. HAYEK, *THE COUNTER-REVOLUTION OF SCIENCE: STUDIES ON THE ABUSE OF REASON* 20–21 (1952) (Liberty Fund ed. 1979) To go back even further in time, law was the first subject (as part of theology) to be studied scientifically in European universities. Physics was a relative latecomer. WALTER ULLMANN, *LAW AND POLITICS IN THE MIDDLE AGES: AN INTRODUCTION TO THE SOURCES OF MEDIEVAL POLITICAL IDEAS* 79 (1975).

themselves, but a basis for arriving at valid generalizations about how some aspects of the economy actually worked.”¹⁴

It is important to remember that natural scientists have the luxury of being able to isolate their experiments from the complexity of the real world. This difference makes some of the methods of natural science inappropriate for various types of research in the social sciences. Without the luxury of being able to isolate and study one variable in an experiment disconnected from the complexity of the world, research in social science is less verifiable, which gives results that are more subject to skepticism than findings in the natural sciences. But this does not make the social sciences any less of a science than natural science. It is only a different kind of science.

There is research in some of the natural sciences that suffer the same problems of social science when it takes place outside a controlled laboratory. For example, research in the life sciences can be chaotic and unpredictable. Meteorology must involve similar problems both because it is so difficult to study the weather in isolation and because the weather is so chaotic.

The notion that legal scholarship is part of the social sciences is not novel. Richard Posner traces the roots of interdisciplinary legal scholarship to “[t]he late eighteenth and early nineteenth centuries, to Bentham’s utilitarian (essentially economic) theory of criminal punishment and in Savigny’s historicist conception of legal science, which influenced Holmes, [and then] to Max Weber.”¹⁵ When Oliver Wendell Holmes wrote in 1887 that “[t]he life of the law has not been logic: it has been experience,”¹⁶ he was directing us to look at how the law interacted with society. His great work, *The Common Law*, was based on anthropology, as well as legal history.¹⁷ Roscoe Pound, in his book *Spirit of the Common Law*, published in 1921, expressly called for “sound theories” explaining both the law’s origination and its effects on society. In comparing the jurists of the nineteenth century with those of the early twentieth century, Pound wrote:

14. Robert W. Fogel, *Douglass C. North and Economic Theory*, in *THE FRONTIERS OF THE NEW INSTITUTIONAL ECONOMICS* 13, 15 (John N. Drobak & John V.C. Nye eds., 1997).

15. RICHARD A. POSNER, *FRONTIERS OF LEGAL THEORY* 3 (2001).

16. O.W. HOLMES, JR., *THE COMMON LAW* 1 (1887).

17. *Id.*

In the past century we studied law from within. The jurists of today are studying it from without. . . . Where the last century studied law in the abstract, they insist upon study of the actual social effects of legal institutions and legal doctrines. . . . Where the last century held comparative law the best foundation for wise lawmaking, they hold it not enough to compare the laws themselves, but that even more their social operation must be studied and the effects which they produce Such is the spirit of the twentieth-century jurisprudence.¹⁸

When Coase labeled legal research as stamp collecting rather than physics in the late twentieth century, he overlooked this history of scholarship that involved a search for theory with the application of ideas and methods from other disciplines.¹⁹ Interdisciplinary scholarship was so prevalent by 1992 that it prompted Judge Harry T. Edwards to question the desirability of the direction of legal research.²⁰ Over the last forty years, economics has had the greatest impact on legal analysis. This century has seen related fields, like finance theory, public choice theory, and game theory, influence the law.²¹ Empirical analysis is now a well-established sub-discipline in the law. Cognitive science and behavioral psychology are increasing in importance. Legal scholars seem to be combing the halls of the other social sciences looking for the methodology or techniques that can make them just as famous as neo-classical price theory made Richard Posner.

Law professors do not invent the social science methods they apply to legal analysis. Rather they borrow ideas, methods, and techniques from the other social sciences.²² That fact does not make

18. ROSCOE POUND, *THE SPIRIT OF THE COMMON LAW* 212 (1921).

19. Other examples from the twentieth century include the use of economic analysis in the study of utility ratemaking, see, for example, Robert L. Hale, *Does the Ghost of Smyth v. Ames Still Walk*, 55 HARV. L. REV. 1116 (1942). See also JAMES WILLARD HURST, *LAW AND SOCIAL PROCESS IN UNITED STATES HISTORY* (1960) (discussing reliance on sociology at the University of Michigan Law School).

20. Harry T. Edwards, *The Growing Disjunction Between Legal Education and Legal Profession*, 91 MICH. L. REV. 34 (1992). For a discussion of Edwards's ideas, see the symposium in 91 MICH. L. REV. 1921, 1921–2221 (1993).

21. RICHARD POSNER, *OVERCOMING LAW* 85 (1995).

22. POSNER, *supra* note 15, at 2 (“Legal theory is concerned with the practical problems of the law, but it approaches them [by] using the tools of other disciplines.”).

legal research any less of a science. The history of the natural sciences has been scientists using inventions, processes, and techniques developed by others to make momentous discoveries or create great theories. There is genius in the application of other people's inventions and processes.²³ For example, the telescope was originally only a curiosity used by artisans to create new illusions. It was first marketed as a military device for spying. Then Galileo turned a telescope on the heavens and revolutionized the theories of astronomy and the nature of scientific scholarship.²⁴ Even Einstein built his great Special Theory of Relativity on the ideas of others, ideas that came close but lacked the insight that Einstein provided. The famous mathematician Henri Poincare was the first to identify and explain a relativity principle, which he did in the keynote address at the International Congress on the Arts and Science held here in St. Louis as part of the 1904 World's Fair. The next year Einstein published his brilliant paper on relativity.²⁵

The use of methods from other disciplines is prevalent throughout the natural sciences. Geology relies on chemistry and physics; biology relies on chemistry; chemistry relies on physics; and physics relies on mathematics. It may be that, in this sense, mathematics is the only "pure" discipline, not relying on any other.²⁶ So we researchers in the law act no differently than researchers in the natural sciences when we borrow ideas and methods. Our goal, in Mokyr's terms, should be to show genius in the application of other people's work.

Interdisciplinary legal scholarship has not only benefited the legal academy, it has helped advance scholarship in related fields, like

23. See, e.g., JOEL MOKYR, *THE GIFTS OF ATHENA* 15–21 (2002). The Nobel laureate Douglass C. North attributed the tremendous growth of technological advancement beginning in the late nineteenth century to the systematic practical applications of pure science in what he called the Second Economic Revolution, in effect recognizing the importance of engineering. DOUGLASS C. NORTH, *STRUCTURE AND CHANGE IN ECONOMIC HISTORY* 172–73 (1981).

24. de Solla Price, *supra* note 12, at 53–54.

25. WALTER ISAACSON, *EINSTEIN: HIS LIFE AND UNIVERSE* 133–35 (2008); ALBRECHT FOLSING, *ALBERT EINSTEIN: A BIOGRAPHY*, 162–63 (Ewald Osers trans., 1997); RICHARD P. FEYNMAN, *THE FEYNMAN LECTURES ON PHYSICS* 15-3.

26. FEYNMAN, *supra* note 25, at 3-1 ("Mathematics is not a science The test of its validity is not experiment.").

economics and political science.²⁷ It has reinforced the notion that law professors are part of the large community of social science scholars. There are also negative consequences that could arise from the growth of interdisciplinary scholarship. Part of Judge Edwards's concern was the harm to legal education by the failure of interdisciplinary professors to teach doctrine and skills. I share that concern, but I am optimistic that law professors—even those with doctoral degrees in other disciplines—will not forsake their obligation to teach law students how to become lawyers. That means teaching the skills needed by lawyers, including case analysis, statutory construction, and mastery of legal doctrine. I am also concerned about scholars who write only for other scholars, rather than trying to improve society or to advance our understanding about how the legal world works. There is a danger that writing only for other scholars will involve abstract ideas with little relationship to the real world or be based on such unrealistic assumptions that it serves no other purpose than dialogue with fellow travelers. I believe that we are paid to try to improve society with our scholarship, not just to have fun with others who share our views.²⁸

Legal scholarship differs from physical science scholarship in a number of ways. Edward Rubin explains one difference this way:

In the natural sciences, virtually everyone agrees that the purpose is to describe observable phenomena of the natural world. A work that does so correctly is regarded as true and thus as a good or excellent work within the field. The criterion for truth is the identification of causal relationships and the ability to predict the future behavior of events that can occur again. . . . Social science in particular—the very name bespeaks its aspirations—has long measured its success by the same criteria of causation and predictability.

But the scientific model of validity fails us completely when we turn to legal scholarship. . . . Legal scholarship, for the

27. Richard A. Posner, *The Deprofessionalization of Legal Teaching and Scholarship*, 91 MICH. L. REV. 1921, 1928 (1993).

28. Edwards, *supra* note 20, at 36 (“The law schools should have interdisciplinary scholars, but not scholars whose work serves no social purpose at all”).

most part, does not share the descriptive purposes of science; even purported descriptions of existing law can rarely be measured by the criteria of causality or prediction.²⁹

Rubin concludes that we lack an accepted method to evaluate the quality of legal scholarship, resulting in a process of evaluation that is “essentially intuitive.”³⁰ Thus there is “tendency of legal scholars to rate works with which they agree as excellent, and those with which they disagree as seriously lacking in analytic perspicacity.”³¹

The best-known way to judge research in physical science is to ask whether the results can be disproved.³² Although some social science research strives to meet the falsifiable test, it is often an impracticable evaluation method given the impossibility of isolating what is being studied from the complexity of the world. This is especially true for legal scholarship. In addition, some research is validated by commercialization in the market or by grants from the government or foundations.³³ Most legal scholarship is not evaluated by the market or by grant awarding organizations; rather it is generally financed by deans, with little constraint on quality.³⁴ Everyone knows that student-run journals are poor gate-keepers for the publication of quality scholarship. In addition, the obligation of nearly all law schools to have faculty who publish regularly has led to an avalanche of scholarship. With so many articles and so few constraints on quality, it is not surprising that there is so much uncertainty about the worth of legal interdisciplinary scholarship.³⁵

29. Edward L. Rubin, *On Beyond Truth: A Theory for Evaluating Legal Scholarship*, 80 CALIF. L. REV. 889, 902–03 (1992).

30. *Id.* at 894.

31. *Id.* at 895.

32. KARL POPPER, *THE LOGIC OF SCIENTIFIC DISCOVERY* 10 (Routledge 2d ed. 2005). The Supreme Court has relied on the falsification test as the common method to test scientific hypothesis, citing Popper among its authorities. *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 593 (1993) (“[T]he criterion of the scientific status of a theory is its falsifiability, or refutability, or testability”) (quoting K. POPPER, *CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE* 37 (5th ed. 1989)).

33. External validation of scholarship is not a panacea. Journal referees tend to choose scholarship that is similar to what they write, while some grant officers have a tendency to support what is in vogue.

34. Priest, *supra* note 10, at 1942.

35. Richard Posner has said that “a lot of legal theory is vacuous,” POSNER, *supra* note 15, at 1, and that most interdisciplinary legal scholarship is “bad” and “of little value to anyone,”

Not all legal scholarship is science. A few law professors have told me that legal scholarship is properly viewed as part of the humanities. Although I prefer to view legal scholarship to be social science research, I realize that there is some truth in that perspective. A defining characteristic of social science is an attempt to explain the real social world. Legal social science attempts to explain the relationship between law and the real world—not between law and an abstract, artificial or hoped-for world. A substantial amount of legal scholarship does not focus on the real social world and therefore is not social science. Let me give some examples.

Some scholarship is exegesis of legal texts, a valuable enterprise but one confined to the world of words on a page. Still other scholarship is political or social commentary based on the author's view of the world—normative writings. Neither of these is social science. Instead, they are the kind of scholarly work that are characteristic of the humanities. I would bet that many of the other social sciences also include scholars who prefer this kind of research. It is a scholar's own choice whether to write as a social scientist or as someone in the arts. Both kinds of scholarship can be valuable. There is a danger, however, of being unable to distinguish between the two types of scholarship.

Sometimes casual readers disregard information that shows the author's intent in writing the work; often they are unable to judge the validity of work that appears to be social science. It is probably the case that some authors are unaware—maybe even unconcerned—about whether their scholarship is social science or part of the humanities. However, the existence of two distinct types of legal scholarship may give an inaccurate picture of legal writings, leading some readers to accept as true an analysis that is not scientific. In addition, most casual observers will lump together all legal

Posner, *supra* note 27, at 1927–28. However, he puts that in context by noting that scholarship is a “high-risk, low-return activity” and that the prevalence of scholarship with little utility is the “unavoidable price of a body of creative scholarship.” *Id.* at 1928. *See also* Priest, *supra* note 10, at 1942 (“In no field are there positive returns from every investment in basic research. Indeed, in terms of successful inventions per attempt, the dominant output of research laboratories is probably failure. Theoretical research is a probabilistic process”). For a survey of the criticisms of legal scholarship, see BRIAN Z. TAMANAHA, FAILING LAW SCHOOLS 55–58 (2012).

scholarship, never distinguishing between social science and the humanities.

In the mid-80s, Richard Epstein wrote a magnificent book on the protection of property rights under the takings clause of the constitution.³⁶ It was an intellectual tour de force—an elegantly reasoned, comprehensive examination of takings opinions and scholarship over two centuries. But it was fiction—fiction in the sense that it did not deal with reality. Epstein began his analysis by stating that he viewed takings law to be based on common law principles, with a heavy emphasis on tort law.³⁷ He claimed that the same legal principles that governed a person's harm to the property of another should also govern the government's harm to a person's property. However, the two situations differ vastly because the government has very different interests at stake than a person who harms a neighbor's property. Epstein never claimed that the Supreme Court had ever adopted his perspective. He was clear about his starting principles and argued that the takings cases should be examined from this prospective. He spent the next 300 pages rigorously examining all aspects of takings law from a common law perspective—and then reached his conclusion that the New Deal legislation was unconstitutional, which is also not true.³⁸ It is a wonderful book, but it is not a work of social science.

At the time, the book had great play in academia—especially among economists and other social scientists with a conservative bent, but not with legal scholars.³⁹ I think the supporters liked the conclusions about the unconstitutionality of the New Deal. These readers did not, however, pay attention to the artificial foundation upon which Epstein's analysis was built, even though Epstein clearly

36. RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* (1985).

37. As one commentator observed, Epstein bases these legal principles on "Hobbes' and Locke's consent theory, then argues that this theory is embodied in the text of the Constitution and that the courts ought to enforce that text as written. In view of recent scholarship about the origins of the Constitution and the process of constitutional interpretation, this is itself a rather antiquated style of argument." Rubin, *supra* note 29, at 933.

38. Richard A. Epstein, *Takings: Private Property and the Power of Eminent Domain* 281 (1985).

39. Rubin, *supra* note 29, at 935 & n.162 ("The reviews of Epstein's book . . . [ranged] from bewilderment to hostility").

explained this aspect of his work. These readers treated the book as an accurate depiction on takings law, when it was not.

I want to end by returning to Coase's comment about the law being stamp collecting rather than physics. The natural course of legal research over the last forty years has been to become more of physics than of stamp collecting. However, the study of judicial opinions remains an important part of legal scholarship, as it should. With the use of methodology and approaches from other disciplines, we can expect some of the best legal scholarship to qualify as a mixture of both stamp collecting and physics.