BOOK REVIEWS

A THEORETICAL FOX MEETS EMPIRICAL HEDGEHOGS: COMPETING APPROACHES TO ACCIDENT ECONOMICS

A REVIEW OF

THE ECONOMIC STRUCTURE OF TORT LAW. By William M. Landes*
and Richard A. Posner.** Cambridge, MA: Harvard University Press,
1987. Pp. ix, 329. $27.50.

AND

ECONOMIC ANALYSIS OF ACCIDENT LAW. By Steven Shavell*** Cambridge, MA: Harvard University Press, 1987. Pp. viii, 312. $30.00.

*Ian Ayres*****

In the preface to *The Economic Structure of Tort Law*,[1] Professor
William Landes and Judge Richard Posner claim that theirs is "the first
book-length study of the economics of tort law."[2] In accomplishing this
feat they barely outstripped Professor Steven Shavell, whose *Economic
Analysis of Accident Law*[3] also was published in 1987. The joint appearance of these books is fitting for a number of reasons. The books together
synthesize the contributions of economic analysis that have increasingly
dominated the legal literature of tort law during the last 15 years.[4] The
authors are uniquely qualified to provide this synthesis as their own prodigious scholarship encompasses a startlingly broad array of tort topics.[5]

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* Clinton R. Musser Professor of Economics, University of Chicago Law School.
** Judge, United States Court of Appeals for the Seventh Circuit; Senior Lecturer, University of
Chicago Law School.
*** Professor of Law and Economics, Harvard University.
**** Assistant Professor, Northwestern University School of Law; Research Fellow, American Bar
Foundation. B.A., Yale University (1981); J.D., Yale University (1986); Ph.D. (Economics), Massachusetts Institute of Technology (1988). John Donahue, Peggy Schmitt, Peter Siegelman, and Susan
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[1] W. LANDES & R. POSNER, THE ECONOMIC STRUCTURE OF TORT LAW (1987) [hereinafter
LANDES & POSNER].

[2] *Id.* at vii.

[3] S. SHAVELL, ECONOMIC ANALYSIS OF ACCIDENT LAW (1987) [hereinafter SHAVELL].

[4] *See* LANDES & POSNER, *supra* note 5, at 4-9.

[5] *See, e.g.,* W. LANDES & R. POSNER, AN ECONOMIC THEORY OF INTENTIONAL TORTS (1981);

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The juxtaposition of their publication benefits both works—as the books are better viewed as complements than as substitutes. While each book begins by laying out the same simple models of tortious behavior, the books represent starkly different and competing visions of tort economics. This is true not only because several chapters of each book are derived from the authors' specific contributions to the field, but more basically because the authors have fundamentally different approaches to combining law and economics.

Landes and Posner boldly assert their thesis in their book's first sentence: "[T]he common law of torts is best explained as if the judges . . . were trying to promote efficient resource allocation."[6] The goal of their book is to test this positive economic theory by analyzing common law decisions to see if the rules there expounded are efficient.[7] Shavell's work, in contrast, has no unified thesis to defend. His approach is to develop a variety of tort models, but to let the reader, for the most part, decide which models' assumptions most closely fit a particular factual context.[8] In developing these models, Shavell pays more attention than

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Landes & Posner, *A Positive Economic Analysis of Products Liability*, 14 J. LEGAL STUD. 535 (1985); Landes & Posner, *Tort Law as a Regulatory Regime for Catastrophic Personal Injuries*, 13 J. LEGAL STUD. 417 (1984); Landes & Posner, *Causation in Tort Law: An Economic Approach*, 12 J. LEGAL STUD. 109 (1983); Landes & Posner, *The Positive Economic Theory of Tort Law*, 15 GA. L. REV. 851 (1981); Landes & Posner, *Joint and Multiple Tortfeasors: An Economic Analysis*, 9 J. LEGAL STUD. 517 (1980); Landes & Posner, *Salvors, Finders, Good Samaritans and Other Rescuers: An Economic Study of Law and Altruism*, 7 J. LEGAL STUD. 83 (1978). *See also, e.g.*, Shavell, *Uncertainty over Causation and the Determination of Civil Liability*, 28 J. L. & ECON. 587 (1985); Shavell, *Liability for Harm versus Regulation of Safety*, 12 J. LEGAL STUD. 357 (1984); Shavell, *A Model of the Optimal Use of Liability and Safety Regulation*, 15 RAND J. ECON. 271 (1984); Shavell, *Tort in Which the Victim and Injurer Act Sequentially*, 26 J. L. & ECON. 589 (1983); Shavell, *On Liability and Insurance*, 13 BELL J. ECON. 120 (1982); Shavell, *The Social versus the Private Incentive to Bring Suit in a Costly Legal System*, 11 J. LEGAL STUD. 333 (1982); Shavell, *An Analysis of Causation and the Scope of Liability in the Law of Torts*, 9 J. LEGAL STUD. 463 (1980); Shavell, *Strict Liability versus Negligence*, 9 J. LEGAL STUD. 1 (1980); Shavell, *On Moral Hazard and Insurance*, 93 Q. J. ECON. 541 (1979).

6 LANDES & POSNER, *supra* note 5, at 1.

7 Landes and Posner call their hypothesis "*the* positive economic theory of tort law because no rival positive economic theory of tort law has been proposed." *Id.* at 1 [emphasis in original]. Their positive theory of torts shares interesting similarities with critical legal theories. Both types of theories can make positive predictions about legal texts. *See, e.g.*, Dalton, *An Essay in the Deconstruction of Contract Doctrine*, 94 YALE L. J. 997, 1000 (1985) ("Contract law describes itself as more private than public, interpretation as more objective than subjective understanding, consideration as more about form than about substance."). Both are also susceptible to the criticism that the authors may only choose to analyze judicial decisions that favor the maintained hypothesis.

8 The authors have also structured their books differently. Landes and Posner have integrated their economic models into the narrative of each chapter. Shavell conversely has a separate mathematical appendix for each chapter, as well as parallel notes on the literature, and the legal rules of different countries.

The uniformity of Shavell's presentation has a double-edged quality. While the structure makes Shavell's work a better reference by allowing readers to quickly locate the model or literature summary they seek, the bifurcation of narrative and appendix breaks the flow of his argument at times, especially in comparison to the lucid prose of Landes and Posner. Having the mathematical appen-

do Landes and Posner to systematically analyzing alternative assumptions, and more attention to how changing these assumptions can affect the operation of different liability rules.[9]

Perhaps the difference in the books' methodologies can most easily be seen by contrasting their views of liability rules with that of John Prather Brown. In 1973, using a simple economic model of torts, Brown demonstrated that strict liability, negligence, and contributory negligence could be equally effective in efficiently deterring injurer negligence.[10] Working in the wake of this influential early piece, Landes and Posner have what might be considered an embarrassment of riches.[11] And indeed, at times they need to rely on ancillary costs, such as the administrative costs of litigation, to argue that one liability rule is superior to another.[12]

In sharp contrast to Brown's equivalence theorem (and to Landes and Posner's positive theory), Shavell is responsible for what might be called an impossibility theorem. For in introducing the effect of "activity levels" into the analysis,[13] Shavell demonstrates that under certain assumptions no liability rule can induce the socially efficient amount of care:

> [N]o rule . . . induces both injurers and victims to choose optimal levels of their activities. . . . The reason, in essence, is that for injurers to choose the correct level of their activity they must bear accident losses, whereas for victims to choose the correct level of their activity they too must bear accident losses. Yet injurers and victims cannot each bear accident losses.[14]

Thus, in looking at the same economic phenomena as Landes and Posner, Shavell not only fails to endorse the efficiency of the common law, but suggests situations in which efficient outcomes are unattainable.[15]

The authors' differences are also reflected in their attitudes toward

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dix in the back sometimes makes the textual narrative sound conclusory with the guts of the argument separated into the appendices' mathematical proofs.

And while Shavell systematically lays out the literature in sections at the end of the chapters and the appendices, he often addresses current academic controversies in the text without directly acknowledging his academic adversary. The uninitiated reader thus gets the feeling at times of hearing only half the debate. *See, e.g.,* SHAVELL, *supra* note 7, at 17 (discussing least-cost avoider); *id.* at 30 (discussing the reciprocal nature of harm).

  [9] For example, Shavell discusses how consumers' perception of risk, *id.* at 54, or insurers' ability to monitor insureds' due care level, *id.* at 211, alters the analysis.

  [10] Brown, *Toward an Economic Theory of Liability,* 2 J. LEGAL STUD. 323 (1973).

  [11] Brown's equivalence result could alternatively be viewed as a boon to the efficiency theory of the common law. After all, how could the common law go wrong if so many forms of liability can be efficient? Within this set of equally efficient common law rules, however, the positive economic theory of Landes and Posner is inherently indeterminant.

  [12] LANDES & POSNER, *supra* note 5, at 82.

  [13] *See* Shavell, *Strict Liability versus Negligence,* 9 J. LEGAL STUD. 1 (1980).

  [14] SHAVELL, *supra* note 7, at 29.

  [15] *See also id.* at 211 (describing insurance equilibrium in which insurers cannot observe injurers' level of care).

comparative negligence. Shavell concludes that "no persuasive theoretical argument" supports preferring contributory negligence over comparative negligence on efficiency grounds.[16] Both liability rules can perform the prime objective of inducing optimal levels of due care.[17] For Shavell, the two liability rules can only be distinguished by "rather subtle" and offsetting differences: contributory negligence should have lower administrative costs, while comparative negligence should spread risk more efficiently.[18] Landes and Posner, however, describe the movement to comparative negligence as "a contradiction to the positive economic theory of tort law."[19] Because Landes and Posner assume away risk-aversion,[20] the risk-spreading advantage of comparative negligence is eliminated[21] and the higher administrative costs of apportioning damages makes comparative negligence rules inefficient. Thus, in describing one of the most important recent changes in American tort law, Shavell remains theoretically agnostic, while Landes and Posner give witness to definitive conviction.

In fact, for Shavell the whole enterprise of trying to determine whether or not tort law is, on balance, efficient is "not especially fruitful."[22] His most general reaction to Landes and Posner's efficiency hypothesis is contained in his conclusion:

> [N]ot only does there seem to be considerable consistency, but there also seems to be substantial ambiguity and inconsistency between the liability system that we observe and the regime that is best given the criteria of optimality and the models examined here.[23]

Although Shavell's agnosticism is less inspiring, it lends a certain objec-

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16 *Id.* at 294.

17 This result, extending Brown's equivalence theorem, was first developed by David Haddock and Christopher Curran. *See* Haddock & Curran, *An Economic Theory of Comparative Negligence,* 14 J. LEGAL STUD. 49 (1985).

18 SHAVELL, *supra* note 7, at 294 n.2.

19 LANDES & POSNER, *supra* note 5, at 82. This "contradiction" is not truly at odds with their larger theory that legislatively made law tends to be inefficient, *see* R. POSNER, ECONOMIC ANALYSIS OF LAW xx (1986), as 35 of the 42 adopting states have adopted comparative negligence by statute. Indeed, the statutory movements toward both comparative negligence and contribution occasion an example of extremely suspect econometric analysis in which Landes and Posner purport to test whether states that "weight efficiency heavily (as judged by their public policies)" are less inclined to legislatively adopt these inefficient rules. After failing to describe two of the regressands, the authors report regressions with R-squares of .02 (with coefficient t-statistics no greater than 1.74) and conclude there is "a positive and significant relationship between [government inefficiency variables] and the probability that a state allows contribution." LANDES & POSNER, *supra* note 5, at 221-22.

20 LANDES & POSNER, *supra* note 5, at 55-58. For a criticism of this assumption see Balkin, *Too Good to be True,* (Book Review), 87 COLUM. L. REV. 1447-1483 (1987).

21 Landes and Posner acknowledge that "if potential victims and injurers are risk averse . . ., if insurance is unavailable, and if the cost of apportionment is small, the sharing of the damages may be preferable to having one party bear all the losses." LANDES & POSNER, *supra* note 5, at 82.

22 SHAVELL, *supra* note 7, at 294 n.3.

23 *Id.* at 294.

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tivity to his analysis—he has no commitment to look for specific results. While Landes and Posner's stated goal is explicitly non-normative, there is the risk that in testing their efficiency theory they have become emotionally invested in its conclusions. Indeed, at times it seems that they, much more than Shavell, are laboring under some kind of burden to find efficiency explanations of common law rules.

This is nowhere clearer than in Landes and Posner's analysis of the common law's refusal "to impose liability for failure to assist a stranger in distress no matter how low the costs of assistance would be or how great its benefits."[24] Landes and Posner trot out an elaborate model to suggest that this common law rule of no liability may be efficient even when encouraging rescue is efficient. They argue that imposing liability on potential rescuers will cause them to avoid activities in which they might encounter a duty to rescue—so that there might actually be less rescuing if liability is imposed. A closer look at their model, however, leads to exactly the opposite conclusion. The assumption that potential rescuers will be motivated by the potential of liability to change their behavior indicates that they would fail to rescue if they came upon a victim and there was no threat of liability. Thus, within their model there would be no rescues in a no-liability world, because potential rescuers encountering a victim would not choose to incur the costs of rescue. Landes and Posner must compare a zero-rescue equilibrium under the no-liability rule with possibility of rescue (albeit with *ex ante* substitution) under the liability rule. Since something is always bigger than nothing, the logic of their model indicates that the common law rule is inefficient.[25]

In criticizing Landes and Posner's test of common law efficiency, however, one should not lose sight of the fact that their goal is more interesting and more difficult than Shavell's. Shavell's approach has the analytic attraction of correctness—given the assumptions of his models, his conclusions necessarily follow. But Shavell does not take the additional step of testing his models' empirical implications. Taking this difficult step to empiricism is the core of Landes and Posner's enterprise. Instead, Shavell is content to describe in an analytically rigorous fashion testable (but untested) implications of many different models. Thus, if Landes and Posner are hedgehogs who know one thing (but very well) and Shavell is a fox who knows many,[26] it is important to emphasize that

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[24] LANDES & POSNER, *supra* note 5, at 143.

[25] Indeed, Landes and Posner compound this error by praising the common law exceptions to the no-duty-to-rescue doctrine (involving for example the duty of a railroad to assist an ill passenger). As the authors correctly point out, all the common law exceptions "involve an actual or potential contractual relationship." *Id.* at 147. But this means that the common law only imposes a duty to rescue in those situations in which it is least necessary—as these potential victims can contract *ex ante* for their rescue.

[26] *See* I. BERLIN, THE HEDGEHOG AND THE FOX 1, 2-4 (1953). Berlin developed the

their knowledge stems from different sources. Landes and Posner's monolithic view of efficiency, although theoretically informed, is known empirically,[27] while Shavell's conclusions are derived from purer theory.[28]

In his conclusion, Shavell asserts that the value of his book will "depend on whether the assumptions studied capture important elements of reality, on the degree to which the analysis helps to organize thought about the effects of liability and the insurance system, and on the extent to which the analysis identifies effects that the reader does not consider obvious."[29] Both books abundantly succeed when tested against these criteria. The authors provide provocative and insightful foundations for an economic knowledge of our liability system. But beyond this considerable achievement, the products are clearly differentiated as the authors set about their tasks in different ways. For those who think that economic analysis must yield uniform or uniformly conservative conclusions, these books will offer methodological insights into the variety of ways there are to "do economics."

Finally, I would suggest that the next wave of economics research should more carefully model the production of torts. Other areas of economics have developed elegant and tractable expressions for a wide variety of production functions.[30] Many of the economic models of torts can be reconceived as classical production functions that transform certain inputs, such as the parties' due care, into a product, such as the expected damage of a tort. While many tort models currently turn on the explicit nature of tort production,[31] the tort literature has generally failed to address issues of economies of scale or scope in the production of torts that has been central to analysis of production in other economic arenas.[32]

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hedgehog/fox dichotomy from a line of the Greek poet Archillechus which says, "The fox knows many things, but the hedgehog knows one big thing." *Id.* at 1.

[27] More specifically, their empirical approach entails a comparison of what the positive law is with a prior theoretical determination of what an efficient rule would be. Indeed, Berlin's hypothesis that "Tolstoy was by nature a fox, but believed in being a hedgehog" might aptly be extended to Landes and Posner's positive theories. For while they wish to focus upon common law efficiency, it is in the telling of their individual stories that they, like Tolstoy, show their true strength.

[28] Witness, for example, Shavell's unqualified conclusion that if there is no uncertainty over injurers level of care, injurer's will not purchase liability insurance. SHAVELL, *supra* note 7, at 212.

[29] *Id.* at 291.

[30] A production function is a mathematical formula expressing how inputs may be transformed into outputs.

[31] *See, e.g.,* SHAVELL, *supra* note 7, at 17 (describing least cost avoider); LANDES & POSNER, *supra* note 5, at 210-14 (describing joint care and alternative care).

[32] *See generally* W. BAUMOL, J. PANZAR AND R. WILLIG, CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE 67-93 (1982).