Legal Phenomena, Knowledge, and Theory: A Cautionary Tale of Hedgehogs and Foxes

Ronald Jay Allen* Ross M. Rosenberg†

*Northwestern University School of Law, rjallen@northwestern.edu
†Sullivan & Cromwell - New York Headquarters

This working paper is hosted by The Berkeley Electronic Press (bepress) and may not be commercially reproduced without the permission of the copyright holder.

http://law.bepress.com/nwwps-plltip/art35

Copyright ©2002 by the authors.
Legal Phenomena, Knowledge, and Theory: A Cautionary Tale of Hedgehogs and Foxes

Ronald Jay Allen and Ross M. Rosenberg

Abstract

This article analyzes the susceptibility of areas of legal regulation to being organized or explained by top-down deductive theories of general applicability. It hypothesizes that at least three variables determine in part the likely relevance of general theories to sets of legal phenomena, ambiguity (gaps in the law), unpredictability (computational intractability), and the comparative need for specialized and common sense reasoning. We hypothesize that as ambiguity, unpredictability, and the utility of common sense reasoning go up, the amenability of a set of legal phenomena to general theoretical approaches decreases. We thus predict that the meaning of negligence will be resistant to theoretical approaches, both economic and corrective justice, and that the nature of antitrust law will embrace the microeconomic approach. We test these predictions in various ways and find support for both of them.
Our thesis is simple to state, but difficult to elaborate, and perhaps even more difficult to establish. It is: a portion, perhaps a substantial portion, of legal theory, and thus derivatively much of what passes for legal knowledge, systematically misconceives the nature of the legal phenomena under investigation and thus generates false conclusions. Alternatively: a portion of legal scholarship mismodels the phenomena under investigation, with untoward results as judged by the accuracy of the explanations or predictions generated by the model. These articulations, which we take to be synonymous, are brimming with ambiguity, such as what are legal phenomena, knowledge, and theory? We intend to provide no direct answers to those questions here, but instead, first, take the terms in their commonplace, unelaborated meaning, and second, give examples of what we mean by them as we proceed. Indeed, the examples and their elaboration are the central focus of the article.

1 Sir Isaiah Berlin, in the Hedgehog and the Fox (1953), noted the difference between intellectual hedgehogs who relate everything to "a single, universal, organizing principle," and intellectual foxes "who pursue many ends, often unrelated and even contradictory" that are "related to no moral or aesthetic principle."

2 John Henry Wigmore, Professor, Northwestern University School of Law. We are indebted to Jamie Jarvell, Ian Logan, Brian Nolan, and William Rohner for their superb research assistance. We also are indebted Craig Callen and Richard Posner, for their comments on an earlier draft, and to the participants at workshops at the Emory University, Washington University, University of Texas, University of San Diego, and the Chicago Kent School of Law Conference on Torts.

3 J.D. Northwestern University (1999), Associate, Sullivan & Cromwell.

4 Because of the untoward results, we do not need to deal directly with Milton Friedman's well known description of the role false assumptions play in useful models. [cite]
Now, a brief elaboration. Some portion of legal scholarship and legal theorizing involves the articulation of general theoretical approaches to legal phenomena. We are presently indifferent to the size of this portion, although there is reason to believe it is substantial. Frequently, and again we are indifferent to how frequently, these general theories are advanced as explanations of, or ordering mechanisms for, a set of legal phenomena. We concentrate in this article on two related examples of this: the Learned Hand theory of negligence and the microeconomic approach to Sherman Act antitrust claims. Numerous additional examples are at hand ranging from the grand jurisprudential theories of Ronald Dworkin or Joseph Raz to the equally ambitious economic theories of Richard Posner and Stephen Shavell and the ambitious challenges to them from behavioral economics, to mid-level theories offered as "reconceptualizations" of some more modest slice of the legal pie.

Our thesis is that some portion of these theoretical efforts generate false conclusions because of the incompatibility between the nature of the legal phenomena under consideration and the tools standardly used, in particular the tool of the generalized, top down theory. Moreover, we think we can identify some of the aspects of legal phenomena that determine, in part, their amenability to differing kinds of analyses. We make no claim that we have a complete taxonomy of the attributes of legal phenomena; we do believe we can identify some of their critical aspects, however, and that we can demonstrate

---


Fortunately, see n.**, supra, we are not claiming that all efforts at legal theorizing generate false results, and we presently aren't able to estimate what proportion does. That is not the burden of this paper in any event. The burden of this paper is to lay out a potentially fruitful way of thinking about legal knowledge.
some of their implications. In particular, three variables seem to be consistently at play in one way or the other with respect to legal phenomena: ambiguity, unpredictability, and common sense.

By "ambiguity" we mean that the true state of the law is ambiguous at the time of decision, that it does not, literally, come into being until a decision is reached. There is a gap, and is perhaps it is accurate to say that the relevant law does not exist. Gaps are plausibly ubiquitous in the law. Every occasion of a "reasonableness" standard is a potential occasion of ambiguity, of a case in which a significant portion, if not all of the relevant standard is not, in fact, known in advance. Negligence is thus a possible example of ambiguity in the law, and one that we return to later. Perhaps standards of the community, or whatever, do not really preexist decision. Tax regulations seem to identify another example. As fast as the regulations are churned out, tax lawyers concoct avoidance mechanisms, one plausible explanation of which may be ambiguity. Antitrust regulation, by contrast, may not involve as much ambiguity as negligence, due to the dominant role of anticompetitive effects, and again we return to this example below.

---

8 Although our view is that much of the law is "objective" in one sense or another, nothing much turns on the matter for this article. It does matter if the law is knowable. Much has been said on the objectivity of the law. See, e.g., Kent Greenawalt, Law and Objectivity (1992); Andrei Marmor (ed.), Law and Interpretation (1995); Patrick Herhot (ed.), Law, Interpretation and Reality (1990); Ronald Dworkin, Objectivity and Truth: You'd Better Believe It, 25 Phil. & Pub. A. 87 (1996). We also do not see that we are committed to any particular perspective on justice. See generally, John Rawls, Political Liberalism (1993).
The common law is, in a sense, a formalized means of dealing with gaps in the existing regulation of behavior by creating law out of a vacuum, as it were. Much the same is true of administrative law, statutory interpretation and constitutional law. In virtually every legal field, the application of case law or statutes to an unanticipated problem is commonplace. What sense can be given to the notion of applying the intent of the drafters to wiretapping, for example? Not even Ben Franklin, as he was flying his kites in rough weather, was thinking of electronic surveillance. Although some might deny that the law has gaps, we think it plain that it does. Perhaps the Dworkinian (not obviously held by Dworkin himself) claim is less that the law has gaps, and more that when it does they should be filled in a particular way.\(^9\) This brings us to the second aspect of legal phenomena, unpredictability.

By "unpredictability" we mean computational intractability. By computationally intractability, we mean not only problems that cannot possibly be computed in real time\(^10\) but problems that realistically defy human computational capacity for whatever reason. Some problems have formal solutions, but the solutions are so complicated that they could not realistically be computed. A simple example of this kind of complexity is chess. Every move in chess is formally determined; there is no known ambiguity as we previously defined it. Moreover, there are at any one time relatively few moves that can be made. There are only twenty possible opening moves, and only twenty possible responses. However, the possible combinations of moves increases algorithmically. For example, there are 20 times 20, or 400, combinations of the first two moves, and it all goes downhill ("uphill" probably better captures the point) at, for a while, an increasing rate (the number of possible moves increases for a while). For all the increases in computer speed, it remains true that all the possible combinations of chess moves cannot be computed in real time, which is why only once has a computer beaten a grand master in a match.

\(^9\) [To be provided]

\(^10\) Add cite
(and there is some doubt about the fairness of that match).  

Computers compute and humans think, which are related but different functions. In this one small area, with a limited number of variables, only recently has formal computational capacity begun to substitute for whatever it is that expert chess players do in addition to computation. We think there is evidence indicating the difference between computation and thought is relevant to legal regulation in predictable ways.

---

11 For example, Kasporov was denied access to any previous gains played by Big Blue, whereas the IBM team could study Kasporov’s prior games. All of this is detailed on various seb cites, such as Http://whyfiles.org/040chess/. And it should be noted that IBM declined a rematch on Kaspòrov’s conditions (disclosing prior games, for example).

12 There are substantial complexities here, of course.
Much of life is considerably more complicated than chess, it would appear. If it is complicated because no formal rules apply, then it is ambiguous in our terms. If formal rules apply, often the implications of those rules will be computationally intractable in the manner we just explained. Perhaps negligence involves ambiguity in the sense that the parameters of a community’s standards may not be knowable in advance of decision. Maybe they are, however, in which case computational intractability will be an issue.

How does one accommodate ("compute") the views of the approximately 7,000,000 people in the greater Chicago area, for example? By contrast, whether some arrangement is anticompetitive (to return to the antitrust example) may be comparatively straightforward (which is not to say it is simple on some absolute scale). If either ambiguity, unpredictability, or both, characterize or suffuse an area of law, we predict that formal topdown theories will be relatively uninformative about the area.

The third variable that bears upon the regulation of legal phenomena is whether something is amenable to common sense understanding or instead requires specialized knowledge to comprehend. Negligence and antitrust

13 If formal rules, the basis of decision, or the criteria to be employed are not knowable in advance, rather plainly nothing but banal top down theories can explain legal decision making (e.g., “The judge decides as he pleases.”).

14 We mean by "common sense" not just the collection of conventional biases but at least the elaborated meaning contained in the work of Lydn Forguson, Common Sense (1989). See, e.g., Ronald J. Allen, Common Sense, Rationality, and the Legal Process, 22 Cardozo
regulation again provide useful examples. If negligence means something captured by either reasonableness or community standards, it does not typically require expertise to identify or apply to the facts of a case. To identify anticompetitive practices, by contrast, plausibly requires a grounding in economics beyond that held by a large proportion of the public.

L. Rev. 1417 (2001). See also Brian Grant, The Virtues of Common Sense, 76 Phil. 191 (2001). We thus see common sense as different from public or popular opinion. Argumentative appeals to popular opinion have long been viewed as logically fallacious, leading some to view it as substantively misguided reliance on collections of myths and superstitions. See, e.g., Irving M. Copi & Carl Cohen, Introduction to Logic (8th ed. 1990) 91-107. This has in part fueled scientism within some legal circles, but unfortunately appeals to authority are just as much logically flawed. Id. For interesting and thorough treatments of these two topics, see the two books by Douglas Walton, Appeal to Popular Opinion (1999) and Appeal to Expert Opinion (1997).
As our examples of negligence and antitrust regulation imply, we think these three variables — ambiguity, unpredictability and common sense reasoning — determine to some extent the explanatory power and usefulness of top down, generalized theories to legal phenomena.\(^{15}\) We hypothesize that top down theories increase in utility as the relevant legal phenomena decrease in ambiguity, unpredictability and the amenability to common sense reasoning. As these variables go in the opposite direction, with ambiguity and unpredictability increasing, and the need for specialized knowledge decreasing, we predict that top down theories of the standard legal academic sort will prove less valuable. We make no claim here about the interactions of these variables, in particular of the relationship between ambiguity and unpredictability on the one hand and common sense reasoning on the other. Perhaps they are independent; perhaps not.\(^{16}\)

\(^{15}\) Our hypothesis thus differs from the conventional argument over commonsense reasoning and pragmatism. We are trying to determine whether the variables that lead to commonsense and algorithmic approaches can be identified; we are not claiming that legal theory is, whole hog, futile or useless. For a general discussion of the argument from pragmatism, see David E. Van Zandt, An Alternative Theory of Practical Reason in Judicial Decisions, 65 Tulane L. Rev. 775 (1991).

\(^{16}\) We also are not making any essentialist claims that legal phenomena necessarily have certain attributes. We are analyzing what we observe under present circumstances.
In the remainder of this article, we test our hypothesis in the following two ways. First, we predict that courts and legislatures will systematically ignore theoretical legal scholarship precisely because it often fails to account for the nature of the legal phenomenon supposedly under investigation.\textsuperscript{17} The analytical tools entailed by top down theorizing brought to the task of explicating legal phenomena are often not suited to it, in other words. We provide evidence supporting this prediction that shows the astonishing disparity in the citations to academic work among academics as compared to citations to the same work by courts or references to it in legislative histories. There is an abundance of evidence that even the academic work of the theoretical giants of the law such as Dworkin and Posner is virtually ignored by the vast majority of individuals and institutions that create and enforce the law. By contrast, the work of the doctrinalists such as Corbin, Wigmore and Wright are cited by the courts hundreds of thousands of times.

Perhaps this first test of our thesis misses the manner in which advances in legal knowledge get assimilated by the system as a whole\textsuperscript{18}. Perhaps it is not through engagement with the primary sources themselves but instead through the inculcation of new ideas in the minds of law students, through exposure at conferences and the like, that the judiciary and the legislature become swayed by academic theory.

\textsuperscript{17} We make no prediction about whether any legal scholar cares about this, or whether the lack of citation is a badge of honor in some fashion.

\textsuperscript{18} For a useful discussion of the institutional factors which may structure the absorption of economics into Antitrust Law see William E. Kovacic, the Influence of Economics on Antitrust Law 92 Econ Inquiry 294 (1992).
Perhaps, but this, too, is subject to testing, we think. The microeconomic explanations of negligence and antitrust have existed for roughly the same length of time, and thus have had similar opportunities to work their way indirectly into the law. If anything, the microeconomic explanation of negligence has had a greater opportunity, as torts is studied, apparently, by more students than antitrust.\(^{19}\) We predict, however, that the impact of microeconomics on negligence and antitrust will vary considerably. Negligence involves highly ambiguous and unpredictable matters because it ranges over virtually all of human affairs. Moreover, if it involves reasonableness as conventionally understood, it does not require any specialized knowledge to identify or apply; common sense is typically all it takes. Therefore, we predict that the law of negligence will be largely oblivious to the microeconomic analysis. By contrast, antitrust involves a much smaller slice of human affairs than negligence (as complicated as the economy is, the economy is a subset of human interactions), is reducible to a smaller set of variables, and requires some expertise to grasp. Thus, we predict that antitrust law will show considerably greater colonization by economics than negligence law. Since both areas have had a considerable time to be colonized by the students of the proponents of these ideas, this provides a natural test of whether our citation analysis misconceives how legal knowledge is disseminated. In sum, our data show striking differences between these two fields.

Perhaps the problem is not with theoretical topdown theories of negligence but with the microeconomic theory of negligence. There are numerous current theories that have negligence as their inspiration, and perhaps one of those has succeeded where microeconomics has failed. This is a more difficult issue to test, but there is at least some evidence about it. That evidence is that instructions on negligence have remained stable over an extended period, indicating a general indifference to academic discourse.\(^{20}\)

\(^{19}\) Torts is generally and maybe universally a required course; antitrust is not.

\(^{20}\) Other areas of tort law may have different implications. That, of course, is part of our point. In any event, evidence exists of the effect of scholars on workmen's compensation legislation, strict liability for abnormally dangerous activities, defective products, and "no-fault" automobile accident compensation. See G. Edward White, The Unexpected Persistence of
Even if instructions have remained stable, perhaps courts of appeals fashion negligence cases to fit the economic mold. We give good reason to doubt this by comparing the treatment of negligence in Illinois and Louisiana (the one state to adopt the economic approach).
So, first, we present our citation data, which can be done quite succinctly. We then turn to negligence. We review our understanding of the debates over the nature of negligence, and then present the data indicating the general irrelevance of that debate for the courts and for the jury instructions in typical negligence based torts actions.21 We then look at a series of Illinois Supreme Court cases dealing with negligence, searching them for some signs of a systematic economic approach, of which there is essentially none. We compare the Illinois cases with negligence jurisprudence in Louisiana, for Louisiana seems to be the one state that has adopted the economic approach to negligence. The significance of the Louisiana cases is that they show judges are capable of employing the economic approach directly, thus suggesting that those who do not—the rest of the nation, basically—are doing so because of choice rather than necessity. Last, we present the results of a comparative search for the impact of microeconomics on antitrust law and find a different picture.

I. Comparative Citations by Academics, Judges, and Legislators

There are claims for the significance of legal theory,22 and there is also much bemoaning of the irrelevance of legal scholarship.23 One obvious source of data bearing on this disagreement is citation practices by judges and

21 Of course, litigation and regulation are different, but one must start somewhere.


references in legislative history. If the legal theorists have an impact, their work plausibly would appear in the work product of the legal system. It doesn’t.

We have examined the relationship between citations in law reviews and citations by judges and legislators in legislative records.24 There is no direct relationship between the two that we can find; indeed, the relationship generally may be inverse.25 The renowned theoreticians who get thousands of citations in the legal literature, including perhaps the two giants of modern American legal theory, Posner and Dworkin, received relatively few citations in cases or legislative reports (excluding Posner’s judicial opinions, of course). Through July, 2000, Posner’s academic work gathered close to 9,000 citations in law reviews, but only 628 in cases. Dworkin got by our count about 4,000 citations in law reviews, and 87 in the cases. Other legal heavy hitters fared similarly. Cas Sunstein received approximately 5,000 citations in law review, but only 227 in cases. Richard Delgado had been cited in law reviews over 2,000 times, and in cases four times.26 Both Catherine MacKinnon and Jack Balkin had been

24 Others have looked into this issue as well, see Richard Posner, The Influence of Economics on Law: A Quantitative Study.

25 We say “may” because we have not checked for citations of the doctrinalists in academic work, as we are indifferent to what it shows.

26 We gathered the citation data from standard Westlaw searches. However, we could not create a computer search methodology that permitted us perfectly accurately to sort out
cited in law reviews close to a 1,000 times each, but got only scattered cites in cases (MacKinnon 12 and Balkin 3). This is as we would predict.
Also consistent with our thesis, the single most cited authority for an argument that we have been able to identify is common sense, invoked as an argument.\(^{27}\) The words and phrases "common sense," "commonsensical," and "sensible," used as an argument (based on crude sampling\(^{28}\)), appear upwards of 70,000 times in Westlaw.\(^{29}\) And again consistent with our thesis, the only close competitors that we have been able to identify are treatises. Wright and Miller is cited about 35,000 times. Wigmore is next with about 22,000 cites, Corbin gets about a 1,000, and almost no one who is or was not an established treatise writer gets more than a 100.\(^{30}\) This is not because law reviews are not cited. Cases cite law reviews over 350,000 times.\(^{31}\) They just don't cite what passes for high theory very much. Perhaps the zenith of the neglect of the legal academy, or nadir depending upon your point of view, are the cases of Vacco v. Quill\(^{32}\) and Washington v. Glucksberg,\(^{33}\) in which the Supreme Court held that state bans on assisted suicide do not violate the fourteenth amendment. A

\(^{27}\) Surely precedent would topple even common sense. We just could not come up with an efficient method of getting a count of case citations as authority, but William M. Landes & Richard A. Posner, Legal Precedent: A Theoretical and Empirical Analysis 1976 JLS 249, provides evidence that this is correct.

\(^{28}\) We generated a list and looked at them in an ad hoc way. Virtually all references to common sense and related terms employ them as arguments. Again, what matters here is the magnitude, and if anything our number is probably low. See note,* infra.

\(^{29}\) This almost surely grossly understates the reliance on common sense as an argument, for the concept is often invoked in different terms. For example, in Balderos v. City Chevrolet, 7th Cir. No. 97C2084, May 16, 2000, Judge Posner disposed of one legal contention by arguing: "If there were such a relationship it would mean that the buyer could tell the dealer to shop the retail sales contract among finance companies and to disclose the various offers the dealer obtained to him, and no one dealing with an automobile dealership expects that kind of service." No one with common sense, in any event.

\(^{30}\) Believing our point was satisfactorily made, we did not check other treatises, such as Moore's Federal Practice. We also didn't check the extent to which treatises are cited by legal academics, as our thesis is indifferent to that.


\(^{32}\) 117 S. Ct. 2293 (1997).

\(^{33}\) 117 S. Ct. 2258 (1997).
distinguished group of American philosophers\textsuperscript{34} wrote an amicus brief to the contrary (this being perhaps the only issue on which they have agreed in quite some time), which the Court did not even mention in reaching its unanimously opposite conclusion.\textsuperscript{35}

\textsuperscript{34} Ronald Dworkin, Thomas Nagel, Robert Nozick, John Rawls, Thomas Scanlon and Judith Jarvis Thomson.

\textsuperscript{35} Philosophers generally fare badly with the Court. See Neomi Rao, A Backdoor to Policy Making: The Use of Philosophers by the Supreme Court, 65 U. Chi. L. Rev. 1371 (1998), found that only 47 Supreme Court cases cited to "major" western philosophers.
Some legislative history is online.\footnote{We searched in the legislative history, Congressional reports, Congressional testimony, and state archives data bases, and turned up only a scattering of hits. Posner is cited 23 times (and we did not try to determine if any of these were from testimony as a judge concerning the judiciary, for example); Dworkin is cited 26 times (21 in the Congressional Record); Sunstein is the winner with 113, which struck us as impressive; Balkin 3 times; MacKinnon twice.} We have searched this, as well, and again can find virtually no signs that the grand theorists are having a noticeable impact on legislation. A few scholars are politically active and appear as witnesses or provide written testimony with some frequency, but legislative reports are bereft of any reliance on legal academic scholarship.\footnote{For an extended discussion of an analogous point, see Ronald Allen & Ross Rosenberg, The Fourth Amendment and the Limits of Theory: Local v. General Theoretical Knowledge, 72 St. John's Law Review 1149 (1998).} There are a few examples of academics directly influencing legislative enactments—the most notable being the Indianapolis ordinance on pornography—but given the quick demise of that statute perhaps these are taken as lessons of perils to avoid rather than examples to emulate.\footnote{Some of Posner's work can be characterized as a treatise, which causes some complexities here.}

These data are striking. Courts at all levels, and apparently legislators, ignore the theorists, while citing the practitioners. The judges apparently, and not surprisingly, are looking for answers to discrete questions, not solutions grounded in grand theory.\footnote{Some of Posner's work can be characterized as a treatise, which causes some complexities here.} Moreover, we have begun searching the treatises in particular for signs of being influenced by the grand theorists. We do not yet believe we can do this systematically and reliably, but anecdotally there is not much evidence that we can find indicating that the treatise writers are under the influence of anyone remotely like (in relevant respects) Posner, Dworkin or MacKinnon.\footnote{To be provided} This absence of evidence of judicial attention is evidence of both the direct and indirect lack of influence of the theorists on the law. If the indirect
influence theory were correct, there would be some sign of an increasing effect of the work of the theorists. Posner, Dworkin and MacKinnon, have surely had no lack of opportunity to promote their views. If anybody's ideas would slowly seep into legal consciousness through their effect on students and so on, it would be theirs.41

41 There is evidence of social change, of course, of which the movement toward equality for women and minority groups is a good example. We don't have a good answer to how to sort out the cause of general social change of this sort from legal academic writing. We do note, however, that the legal feminist movement appears to be the result of two centuries of social and political change rather than the cause.
It is, of course, entirely possible that courts cite to precedent instead of top-down theory for a variety of reasons unrelated to the relative merits of a specific precedent or theory to solve a particular issue. They may prefer precedent to theory because of institutional, rule of law or due process concerns. Citation to precedent is also such a well-entrenched process that other forms of authority may be choked off by the practices and culture of courts. Finally, there is little doubt that precedent provides good ideological cover. We personally do not doubt that courts cite to precedent for these reasons as well as a good many others. The matter is obviously complex, as the varied literature on the subject demonstrates.\footnote{42} We recognize that inferences drawn from citation rates cannot support, by themselves, the conclusion that courts do not cite top-down theories because many of these theories are amazingly inaccurate descriptions of the legal problems confronted by courts. There are clearly other reasons that courts fail to cite top-down legal theory.

There are significant reasons to believe, however, that the inaccuracy of top-down theories is a strong reason that courts ignore them. The restraints placed upon courts by institutional, rule of law, or due process concerns do not restrain legislative bodies as tightly or in the same fashion. The ambit of explicit policy decisions is greater for legislative bodies, so one would expect that top-down theories authored by legal scholars would have more sway in legislative debates. Yet the same pattern of citation practices appears to repeat itself.\footnote{43} Moreover, courts cite a variety of authorities that do not carry the weight of precedent, such as treatises. There appears to be no great reticence to cite sources outside of traditional case law or statutory law.

\footnote{42}{To be provided}

\footnote{43}{Again, we have not systematically searched for citations to case precedent and practical writing in legislative history, because we formally are indifferent to the matter. The anecdotal evidence is overwhelming, however, as even a cursory review of advisory committee notes to such codifications as the rules of evidence and procedure indicates.}
Nor do we think that politics, or simple prejudices, fail to play a role. Although we find it to be a stretch, it would not be entirely unreasonable to define broad political beliefs as a species of top-down theories. In this vein, a court’s stance on, for example, prosecutorial discretion or health care could be characterized as a form of general theory. Undoubtedly, such beliefs influence courts and legislatures, and admittedly we have not tested for this in any way. Still, the patterns of citation practices do not provide evidence that courts or legislatures are drawing top-down theories from the standard theoretical work of academics, whatever may be the case of generalizations drawn from politics or popular belief.

II. The Meaning of Negligence

Tort scholarship, along with much of the rest of legal scholarship, is driven by top down theorizing. The overriding goal appears to be identifying a simple model or algorithm that "explains" the field. Contemporary scholarship addressing the meaning of negligence is dominated by two competing camps; the microeconomic theorists who largely rely on the Learned Hand/Carroll Towing Formula for their inspiration\(^44\) and corrective justice theorists of one hue or another.\(^45\) Naturally, a spectrum of scholars locate themselves in between these positions, drawing from each in diverse ways. There are only a few voices crying in the wilderness in opposition to this dominant tendency in the field.
There are, of course, a variety of distinctly different versions of the Hand formula and corrective justice theory. We will not focus on the depth of this scholarship except to note several points that are necessary to evaluating the effect of the Hand formula on courts. To begin with, the bare bones of the Hand formula is the well-known relationship posited between the probability of harm, the cost of harm and the cost of prevention. This relationship is often referred to as the “risk-utility test,” “risk-benefit test,” “balancing approach,” or “cost-benefit test.”\footnote{See Restatement of Torts Third: Liability for Physical Harm, Tentative Draft #1, Sec. 3, comment e.} As the names imply, any (theoretically) operative version of this relationship requires, among other things, standards for measuring what does and what does not count as a risk or a benefit.\footnote{Gilles, On Determining Negligence, 54 Van. L. Rev. 821 (arguing that “the mere fact that a court looks to the consequences of the challenged aspects of a party’s conduct does not tell us that the court endorses every (or any) particular conception of the Hand Norm”).} Thus, whether a court deploys the language of balancing risk against harm does not necessarily imply that the Hand formula has been deployed to resolve the case. Rather obviously, assumptions about efficiency or social welfare, or a variety of other yardsticks are required. Without such assumptions, the Hand formula may be a useful way to evaluate the facts of the case, but it remains less than a rule of decision.\footnote{We return to this point when we examine a series of recent Supreme Court of Illinois cases in which balancing risks against harm plays a role, but by no means a dominant role.}
The bare bones of the Hand formula, of course, have a long tradition in American tort law. At least since the pioneering work of Francis Bohlen, American tort scholars have contended that an important aspect of determining whether an act is negligent is figuring out whether the “game is worth the candle.” Bohlen was the reporter for the First Restatement and, in part, due to his influence both the First and Second Restatements include explicit commentary that invites courts to determine whether the risks associated with an activity are worth the costs of harm imposed by that activity. Nonetheless, the reasonability standard of the First and Second Restatement explicitly asks courts to balance risk against harm, and to measure what counts as a risk and harm, against the actions of a reasonable prudent person. We find Stephen Gilles perspective, couched in terms of the First Restatement but equally true of the Second, to be on target, “the immediate point is that the risk-utility test is clearly meant to be an aspect of the reasonable person standard, rather than a replacement for it.”

It is also true that corrective justice theory plays a role in the Restatements and the case law. Although it is more difficult to point to a common denominator among corrective justice theories, for the most part they share the imperative to ground negligence in concepts of fairness or rights. The reasonable person standard of the Restatements clearly invites such normative considerations; there are numerous cases that also depend on such considerations. The point we are driving at is the same for corrective justice theory or the Hand formula. Undoubtedly a variety of common sense considerations about costs, consequences and norms play a role in the decisions of negligence cases; we just do not find much evidence that any one of these factors has been blown into a general theory and successfully pressed upon the courts or legislatures. For what it is worth, we suspect, but cannot now

49

50

show, that the success of the Restatements has resided in large measure in their capacity to encompass this variety of common sense values.

There are only a few voices crying in the wilderness in opposition to the dominant tendency to define negligence in terms of a top-down theory. Only a small slice of the scholarship recognizes the inability of conventional tort law to capture and direct the behavior found in workaday negligence cases. Take Steven Surgarman’s noted attack on the entire regime of private law centered tort adjudication, “[t]ort law is failing—failing to promote better conduct, failing to compensate sensibly at acceptable costs, and failing to do meaningful justice to either plaintiffs or defendants.”\(^{52}\) Surgarman’s remedy, nonetheless, is to argue for a sweeping revolution of the tort system modeled on principles of social insurance and employee benefits.\(^{53}\) We are not concerned with the merits of this proposal; what interests us is the characterization of torts, including negligence law, as a systemic failure and the attempt to replace it with another system.

So far as we can identify, what amounts to a small handful of scholars have straightforwardly argued that tort law cannot be governed by a general top-down theory. Perhaps the most notable is Richard Epstein; after pioneering the use of corrective justice theory in the 1970s, it now appears that Epstein has repudiated his earlier work insofar as it set out a general theory for substantial parts, if not all, of tort law:
Most modern legal theory is system building that seeks to locate the dominant features of legal rules in comprehensive, if not formal, models of economic thought or political theory. This recent move toward constructing wide-ranging theories represents a significant departure from the traditional mode of tort scholarship, which directed its attention to analyzing and resolving marginal cases that did not fit easily within conventional doctrines. Yet the emergence of mass torts in the last generation raises a very different set of questions. In dealing with such complex cases, the object of the system is not perfect justice, but damage control. The right intellectual orientation is not to set the aspirations of the system too high. Trying to get the right result in all cases is noble, but it is also unattainable.\footnote{54}

A few others have moved in the same direction. For John Kansas, academic tort theory and the reforms based on it have failed to accomplish much because central government planning, in the form of a sweeping overhaul of the tort system, is incapable of directing the complexity of social interaction.\footnote{55}

Christine Pierce Wells contends that "rule based theories do not provide adequate justification for the tort system," and in their place suggest that tort verdicts may be justified, in a normative way, only if decision makers are allowed to take into account a long list of complex issues.\footnote{56}


\footnote{55} Cite

\footnote{56} Cite and jump cite
Also on the skeptical side about the significance of topdown theorizing are two studies that attempted to measure the effect of law and economics (a form of topdown theorizing) on torts scholars and courts. The first polled law and economics scholars to find if there was any consensus among them about the efficiency of a variety of tort doctrines. The survey included a question that asked whether "[t]he standard of care under a negligence rule does induce an optimal level of activity?"\textsuperscript{57} The study found that there was no consensus among tort scholars about whether negligence rules produced optimal activity.\textsuperscript{58} Moreover, the study found that there was "no grand consensus about [the efficacy of] common law tort rules" in general.\textsuperscript{59} While allusive, not much should be made of this because of its methodology. The study was based on the return of approximately 65 surveys out of 382 mailed to members of the American Law and Economics Association.\textsuperscript{60}

The second attempt to quantify the impact of economics is by Izhak Englard, an Israeli legal scholar, who surveyed the impact of economic theory

\begin{footnotesize}
\begin{enumerate}
\item Id. at 667.
\item Id. at 694.
\item Id. at 558.
\end{enumerate}
\end{footnotesize}
These skeptics have been essentially ignored by virtually all legal scholars. Because of the dominance in the literature of the proponents of the Hand Formula and Corrective Justice theory and the failure of most mainstream tort scholars to recognize the difficulty of topdown theorizing, it is tolerably accurate to characterize the field as composed of competing camps: those who argue that tort law reduces to corrective justice and those who argue that it reduces to efficiency.\textsuperscript{63} Despite the rather unified structure of this debate, with

\textsuperscript{63} We ignore many currents and tributaries, such as:

1) scholars who criticize the expansion of tort liability over the last forty years from a political or public policy perspective, e.g., the expansion of tort liability has hurt innovation or closed down specific industries; 2) scholars who contend that the tort system in the United States is built on essentially flawed assumptions because it is a private law solution to a public problem that could better be solved through no-fault accident insurance, e.g., accident victims of many types, or perhaps all types, could be compensated by the government. Steven Sugarman recommends that the private tort regime be junked.

3) scholars who agree with the basic principles behind normative or economic theories
its easily identifiable positions, the impact has been meager. As we suggest below, there has been essentially no change to negligence instructions and the law simply does not embody a corrective justice theory to the exclusion of many other concerns (although we are unclear how good a test that is), indicating the relative lack of practical significance to the theorizing of either camp.

III. The Treatment of Negligence by The Courts

of tort law, but disagree with the specific mechanics of a theory or theories created by other scholars, e.g., Mark F. Grady claims that the economic theory of torts in general and the work of Posner, in particular, "took a wrong turn at an early point...[t]he commendable purpose was to develop a parsimonious model that would lay bare the basic structure of negligence doctrine...as the theory evolved, it has yielded...assumptions that are harmful to further progress;" Mark F. Grady, Efficient Negligence, 87 Geo. L. J. 397, 397-98 (1998); see also Mark F. Grady, Why Are People Negligent? Technology, Nondurable Precautions, and the Medical Malpractice Explosion, 82 Nw. U. L. Rev. 293, 294-96 (1988); 4) scholars who describe the relationship between the recent history of tort doctrine and the developments in academic discourse, e.g., Gary T. Schwartz and George L. Priest have engaged in a lengthy debate about whether the recent growth in liability rests on negligence or strict liability principles. Gary T. Shwartz, The Vitality of Negligence and the Ethics of Strict Liability, 15 Ga. L. Rev. 963 (1981); George L. Priest, The Invention of Modern Enterprise Liability: A Critical History of the Intellectual Foundations of Modern Tort Law, 14 J. Legal Stud. 461 (1985); Gary T. Schwartz, The Beginnings and Possible End of the Rise of American Tort Law, 26 Ga. L. Rev. 601 (1992).
The conceptual structure of the Hand formula is reasonably straightforward; if it captures the relevant phenomena, one would expect the courts to employ it in their opinions and jury instructions, and for legislatures to mandate its use. There is very little support for either proposition. Courts do not rely heavily on the Hand Formula, and every state that we have identified so far uses the traditional reasonable person standard in its jury instructions. If the reasonable person standard meant nothing more than the utility maximizing outcome, the least cost avoider, or something similar, eventually that is what juries would be instructed, but no such trend is discernable. We give indirect support to the plausibility that the legal system would migrate to the straightforward economic instruction, if that accurately captured what was intended to be conveyed, by comparing the fate of the microeconomic arguments about negligence to the analogous arguments about antitrust. In antitrust, by comparison, instructions in economic terms abound. Many rationalizations for this state of affairs may be given, but one explanation leaps out: the economic theorists got antitrust right and negligence wrong, which we explain in part by the relative ambiguity and unpredictability of the two areas, and by the relative role of common sense reasoning. Other theorizing about negligence seems to have had very little impact as well. This is demonstrated by the longevity and stability of the reasonable person standard. We presently have no further tests of this proposition, however.

In this section, we present the data indicating the relative lack of significance of the Hand Formula on the courts. In the next section, we present the startling lack of any echoes of the Hand Formula in jury instructions, save only in Louisiana, which in our judgment is the exception that proves the rule. In Section V, we search a single state’s negligence jurisprudence (Illinois) for some signs of having been affected by the Hand Formula, and compare this data to the data from the one state that has been colonized (Louisiana). In

64 Louisiana allows a version of the Hand Formula as an optional instruction. See note **, infra.
Section VI, we compare all of this to the obvious colonization of antitrust by microeconomics.

A. Data

The impact of legal theorizing has been minimal on the courts. Outside of the Seventh Circuit, the ambit of Judge Posner, and the Louisiana state courts, the Hand formula, as a robust, primary rule of decision, is a virtual nonentity. Moreover, the evidence indicates that instructions on negligence have remained stable over the last fifty years, suggesting that the corrective justice theorists have not had a noticeable impact, either.


66
We searched for the impact of the Hand test in various ways, and were
struck by its insignificance. Few cases actually rely on the formula; indeed, few
cite it. Nor do they cite the relevant legal theorists. A search for "Hand formula,"
"Hand /3 formula" and "Hand test"^{67} came up with approximately 30 Federal
Circuit Court of Appeals references, 15 of which were from the Seventh Circuit
following the arrival of Judge Posner. There were twenty-seven such cites in
state cases, with 21 from a single jurisdiction (Louisiana). The Carroll Towing
case is cited once by the U.S. Supreme Court, approximately 50 times by U.S.
Courts of Appeals, 38 times by U.S. District Courts, and 47 times by state
courts. Out of an excess of caution, perhaps, we also shepardized the related
*The T.J. Hopper*^{68} decision. It has been cited 8 times by the U.S. Supreme
Court, 72 times by U.S. Courts of Appeals, 67 times by U.S. District Courts, and
185 times by states courts.^{69} These are not the numbers of a revolutionary or
path breaking decision.^{70}

^{67} These have to be looked at individually to exclude such phrases as "on the other
hand, tests.. ."  

^{68} 60 F. 2d 737 (2d. Cir. 1932).  

^{69} And, interestingly, 323 times in law reviews.  

^{70} United States Supreme Court — *Carroll Towing* cites


Federal Court of Appeals—*Carroll Towing* cites

2.  I & M Rail Link, LLC v. Northstar Nav. Inc., 198 F.3d 1012 (7th Cir. 2000)  
3.  Halek v. U.S., 178 F.3d 481 (7th Cir. 1999)  
4.  Bernstein v. U.S. Dept. of Justice. 176 F.3d 1132 (9th Cir. 1999)  
6.  Jansen v. Packaging Corp. of America, 123 F.3d 490 (7th Cir. 1997)  
9.  Saratoga Fishing Co. v. Marco Seatlle Inc., 69 F.2d 1432 (9th Cir. 1995)  
10. Saratoga Fishing Co. v. Marco Seatlle Inc., 53 F.3d 984 (9th Cir. 1995)  
12. Sands, Taylor & Woody. Quaker Oats Co., 34 F.3d 1340 (7th Cir. 1994)  
13. Pries v. Honda Motor Co., Ltd., 31 F.3d 543 (7th Cir. 1994)  
15. Reardon v. Peoria & Pekin Union Ry. Co., 26 F.3d 52 (7th Cir. 1994)
18. Villanova v. Abrams, 972 F.2d 792 (7th Cir. 1992)
22. Ackley v. Wyeth Laboratories, Inc., 919 F.2d 397 (6th Cir. 1990)
23. U.S. v. McKinney, 919 F.2d 405 (7th Cir. 1990)
24. Green v. Foley, 907 F.2d 1137 (4th Cir. 1990)
29. Archie v. City of Racine, 847 F.2d 1211 (7th Cir. 1988)
30. McCarty v. Pheasant Run, Inc. 826 F.2d 1554 (7th Cir. 1987)
31. Wright v. U.S., 809 F.2d 425 (7th Cir. 1987)
32. Davis v. Consolidated Rail Corp., 788 F.2d 1260 (7th Cir. 1986)
33. Lawson Products, Inc. v. Avnet, Inc., 782 F.2d 1429 (7th Cir. 1986)
34. American Hosp. Supply Corp. v. Hospital Products Ltd., 780 F.2d 589 (7th Cir. 1986)
35. Ducicworth v. Franzon, 780 F.2d 645 (7th Cir. 1985)
36. Easton v. City of Boulder, Cole., 776 F.2d 1441 (10th Cir. 1985)
37. General Foods Corp. v. Valley Lea Dairies, inc., 771 F.2d 1093 (7th Cir. 1985)
38. Llaguno v. Mingey, 763 F.2d 1560 (7th Cir. 1985)
41. U.S. Fidelity & Guar. Co. v. Jadranska Slobodna Plovdb, 683 F.2d 1022 (7th Cir. 1982)
42. Evra Corp. v. Swiss Bank Corp., 673 F.2d 951 (7th Cir. 1982)
43. Lange v. Schultz, 627 F.2d 122 (8th Cir. 1980)
44. Maine Yankee Atomic Power Co. v. N.L.R.B., 624 F.2d 347 (1st Cir. 1980)
45. Corn, of Mass. V. Andrus, 594 F.2d 872 (1st Cir. 1979)
46. Andros Shipping Co. v. Panama Canal Co., 298 F.2d 720 (5th Cir, 1962)
47. Koch-Ellis Marine Contractors v. Sewerage & Water Bd. of New Orleans, 218 F.2d 771 (5th Cir. 1955)
48. Rosenquist v. Istihmina S.S. Co., 205 F.2d 486 (2nd Cir. 1953)
49. Burns Bros. v. Long Island R. Co., 176 F.2d 406 (2nd Cir. 1949)

Federal District Court

Carroll Towing cites

33. Metropolitan Sand & Gravel Corp. v. the Dwyer No 2, 130 F. Supp. 172 (S. D. N.Y. 1954)

State Court Carroll Towing cites

2. Comptech Intern., Inc. v. Milam Commerce Park, Ltd., 753 So.2d 1219 (Fla. 1999)
3. Estate of Hunter v. General Motors Corp., 729 So.2d 1264 (Miss. 1999)
14. Goza V. Comwell, 622 So.2d 704 (La.App. 1 Cir. 1993)
31. Comet Delta, Inc. v. Pate Stevedore Co. of Pascagoula, Inc., 521 So.2d 857 (Miss. 1988)
32. Trusiani v. Cumberland and York Distributors, Inc. 538 A.2d 258 (Me. 1988)
35. Toner v. Lederle Laboratories, a Division of American Cynamid Co., 732 P.2d 297 (Idaho 1987)
37. Maryland Cas. Co. v. City of Jackson, 493 So.2d 955 (Miss. 1986)
42. Golden v. McCurry, 392 So.2d 815 (Ala. 1980)
46. Cooley v. Quick Supply Co., 221 N.W.2d 763 (Iowa 1974)

The following cases all cite to Learned Hand’s formula as the “1-land Formula” or the “1-land Test.” The data base and search term for each group of cases is listed below.

Hand Formula — US Court of Appeals

1) Moriarty v. SVEC, 164 F.3d 323 (7th Cir. 1998).
4) Navarro v. Fuji Heavy Industries Ltd., 117 F.3d 1027 (7th Cir. 1997).
5) Sand. Taylor and Wood v. Quaker Oats Co., 34 F.3d 1340 (7th Cir. 1994)
6) Bammerlain v. Navistar International Transportation Corp. (7th Cir. 1994).
7) Brotherhood Shipping Co. v. St. Paul Fire and Marine Co., 985 F.2d 323 (7th Cir. 1992)
10) McCarty v. Pheasant Run Inc., 826 F.2d 1554 (7th Cir. 1987).
11) Davis v. Consolidated Rail Corp. v. Trailer Train Co., 788 F.2d 1260 (7th Cir. 1986).
12) American Hospital Supply Corp. v. Hospital Products Limited, 780 F.2d 589 (7th Cir. 1986).
13) Duckworth v. Franzén, 780 F.2d 645 (7th Cir. 1985).
14) U.S. Fidelity and Guarantee Co. v. Plovidba, 683 F.2d 1022 (7th Cir. 1982).

Hand Formula — United States District Court

Hand Formula — All State Courts
1) Pinsouneault v. Merchants and Farmers Bank & Trust Co., 738 So. 2d 172 (La App. 1999).
4) Eaton v. McLain, 891 S.W.2d 587 (Tenn. 1994).
14) Dobson v. Louisiana Power & Li2ht Co., 567 So.2d 569, (La., 1990)
17) Madden v. C & K Barbecue Carryout. Inc., 758 S.W. 2d 59 (Mo. 1988).
1) (Miss., Feb 24, 1988).
20) Toner v. Lederle Laboratories, a Division of American Cyanamid Co., 732 P.2d 297, (Idaho,
21) Maryla Cas. Co. v. City of Jackson, 493 So.2d 955 (Miss. 1986).

Hand Test -- United States Court of Appeals
2) Sewell v. Bowen, 792 F.2d 1065 (4th Cir. 1986).
3) United States v. Fountain, 768 F.2d 790 (7th Cir. 1985).

Hand Test — United States District Courts


Hand Test — All State Court

B. The Hand Formula in the Cases of Judge Hand and Judge Posner

As one can tell from the foregoing, data, Judge Posner disproportionally uses the Hand formula. The use Judge Posner makes of the formula contrasts sharply with Judge Hand’s application. Judge Hand explicitly recognized one of the difficulties inherent in applying the Hand formula (a name he did not use) to the facts of a given case. He recognized that it is nearly impossible to find out in a concrete case what the variables should be. In his words:

The difficulties are in applying the rule. As the Supreme Court observed in Conway v. O’Brien, they arise from the necessity of applying a quantitative test to an incommensurable subject matter; and the same difficulties inhere in the concept of ‘ordinary’ negligence. It is indeed possible to state an equation for negligence in the form, C equals P times D, in which the C is the care required to avoid risk, D, the possible injuries, and P, the probability that the injuries will occur, if the requisite care is not taken. But of these factors care is the only one ever susceptible of quantitative estimate, and often that is not. The injuries are always a variable within limits, which do not admit of even approximate ascertainment; and, although probability might theoretically be estimated, if any statistics were available, they never are; and, besides, probability varies with the severity of the injuries. It follows that all such attempts are illusory; and, if serviceable at all, are so only to center attention upon which one of the factors may be determinative in any given situation. 71

71 Moison v. Loftus, 178 F.3d 148, 149 (2nd Cir. 1949).
Judge Posner's application of the formula is less shot through with skepticism.\textsuperscript{72} His statement and application of the formula in the most recent case is telling. Navarro v. Fuji Heavy Industries, Ltd., 117 F.3d 1027 (7\textsuperscript{th} Cir. 1997), involved negligent product design, but the facts and procedural posture of the case allowed the issue of product liability to be reduced to the standard issue of negligence. As Posner summed up the Hand formula:

As we said, this suit is based on negligence rather than on strict products liability. But there is little or no practical difference in a case of defective design, at least so far as the standard of liability is concerned (we have just seen that there is a big difference with respect to the deadline for bringing suit): you must prove that the design was defective in either kind of case, and whether the design was defective is determined by use of the same Hand-formula or cost-benefit approach that is used to determine negligence in a tort case not involving a product.\textsuperscript{73}

\textsuperscript{72} A search of the ALLFEDS Westlaw database returned the following list of opinions in which Posner was listed as the judge and the words Judge /3 Hand and Carroll (for Carroll towing appeared), the actual search string was Ju (Posner) & Negligence & (Judge /3 Hand) Carroll, see,

- Halek v. U.S., 178 F.3d 481 (7th Cir.1999);
- Matter of Linton, 136 F.3d 544 (7th Cir. 1998);
- Vande Zande v. State of Wis. Dept. of Admin., 44 F.3d 538 (7th Cir. 1995);
- Winskunas v. Birnbaum, 23 F.3d 1264 (7th Cir. 1994);
- Brotherhood Shipping Co., Ltd. v. St. Paul Fire & Marine Ins. Co., 985 F.2d 323 (7th Cir. 1993);
- Villanova v. Abrams, 972 F.2d 792 (7th Cir. 1992);
- United States v. Giovannetti, 919 F.2d 1223 (7th Cir. 1990);
- Krist v. Eli Lilly and Co., 897 F.2d 293 (7th Cir. 1990);
- McCarty v. Pheasant Run, Inc., 826 F.2d 1554 (7th Cir. 1987);
- Hill v. Norfolk and Western Ry. Co., 814 F.2d 1192 (7th Cir. 1987);
- Wright v. U.S., 809 F.2d 425 (7th Cir. 1987);
- Davis v. Consolidated Rail Corp., 788 F.2d 1260 (7th Cir. 1986);
- American Hosp. Supply Corp. v. Hospital Products Ltd., 780 F.2d 589 (7th Cir. 1986);
- Duckworth v. Franzen, 780 F.2d 645 (7th Cir. 1985);
- Flynn v. Merrick, 776 F.2d 184 (7th Cir. 1985);
- Llaguno v. Mingey, 763 F.2d 1560 (7th Cir. (Ill.), Jun 05, 1985) (No. 83-1372);
- United States Fidelity & Guar. Co. v. Jadranska Slobodna Plovidba, 683 F.2d 1022 (7th Cir. 1982);
- Evra Corp. v. Swiss Bank Corp., 673 F.2d 951 (7th Cir. 1982).

\textsuperscript{73} Navarro, 117 F.3d at 1029.
Despite Posner's typically strong and sweeping insistence that the Hand formula is the legal standard for negligence, he has qualified his views on at least on occasion: in McCarty v. Pheasant Run, Inc., 826 F.2d 1994 (7th Cir. 1987), a case involving the application of Illinois law to a negligence claim made by a hotel guest assaulted in her room. Posner's holding mirrors Hand's admission that it is difficult to put values to a formula defining negligence and, at best, any formula serves to focus the issues. Posner adds the thought that this practical problem may only be an impediment for some time. As Posner puts matters:

There are various ways in which courts formulate the negligence standard. The analytically (not necessarily the operationally) most precise is that it involves determining whether the burden of precaution is less than the magnitude of the accident, if it occurs, multiplied by the probability of occurrence. (The product of this multiplication, or "discounting," is what economists call an expected accident cost.) If the burden is less, the precaution should be taken. This is the famous "Hand Formula" announced in United States v. Carroll Towing Co. (L. Hand, J.), an admiralty case, and since applied in a variety of cases not limited to admiralty.

* * *

We are not authorized to change the common law of Illinois, however, and Illinois courts do not cite the Hand Formula but instead define negligence as failure to use reasonable care, a term left undefined. But as this is a distinction without a substantive difference, we have not hesitated to use the Hand Formula in cases governed by Illinois law. The formula translates into economic terms the conventional legal test for negligence. This can be seen by considering the factors that the Illinois courts take into account in negligence cases: the same factors, and in the same relation, as in the Hand Formula. Unreasonable conduct is merely the failure to take precautions that would generate greater benefits in avoiding accidents than the precautions would cost.

* * *

Ordinarily, and here, the parties do not give the jury the information required to quantify the variables that the Hand Formula picks out as relevant. That is why the formula has greater analytic than operational significance. Conceptual as well as practical difficulties in monetizing personal injuries may continue to frustrate efforts to measure expected accident costs with the precision that is possible, in principle at least, in
measuring the other side of the equation--the cost or burden of precaution. For many years to come juries may be forced to make rough judgments of reasonableness, intuiting rather than measuring the factors in the Hand Formula; and so long as their judgment is reasonable, the trial judge has no right to set it aside, let alone substitute his own judgment.

It is simply not clear, how Posner reconciles his insistence that the Hand formula accurately models negligence and his concession that "for many years to come" juries will have to make rough judgments based on intuitions of reasonableness. Perhaps an argument could be made the unseen and implicit working of the common law system may reconcile the gap between the difficulty of implementing the Hand formula and its pristine conceptual logic.

Whatever time may bring, it is tolerably clear that Posner has underestimated the real problems which would confront a decision maker attempting to apply the Hand formula. Even in a perfect environment, however that might be defined, there is an abundance of evidence to doubt whether jurors, or judges for that matter, could conduct anything approaching a reliable application of the Hand formula. The many variables involved in applying the Hand formula would, in all probability, involve decision makers in the snare of computation intractability.

IV. Jury Instructions

In addition to searching for cases that adopted or applied the Hand formula, we searched for jury instructions that adopt either some strong version of the Hand formula or corrective justice theory. The Hand formula is straightforward, and easy to grasp, as are the various positions of the corrective justice theorists. Besides the use of the term "reasonable," there is no indication in the jury instructions that we have located indicating that they were shaped along the lines of an articulated, general theory or influenced by the corrective justice theorists (and use of the word "reasonable" long preceded these writings). "Reasonable person" by contrast, is considerably less precise if what is meant is utility maximization, cost/benefit, "least cost avoider" or
whatever. Were judges, legislators and the practicing bar to come to realize, as Posner asserts, that “reasonable person” and some economic concept are synonymous, one would predict that the more precise and easy to understand language would supplant the less precise and opaque language. This has not happened. The Hand formula has not only not become the standard jury instruction; we could find almost no evidence of its use. Louisiana is the only state to our knowledge that employs a variant of the Hand instruction as an optional instruction at trial.

74

We didn’t find this, actually; Patrick Kelley, supra n. * * *, did. LOUISIANA: H. Alston Johnson, Civil jury instructions, 1994.

La. C.J.I. 3.01 Negligence – General composite chrge in ordinary cases

Optional paragraph

[The ordinarily prudent person will avoid creating an unreasonable risk of harm. In determining whether the defendant breached this standard, and created an unreasonable risk of harm, you may weight the likelihood that someone might have been injured and the seriousness of that injury against the importance to society of what the defendant was doing and the advisability of the way in which he was doing it, under the circumstances.]
We conducted our research using the Westlaw database and a variety of standard jury instruction treatises. The database JI-ALL contains jury instructions for California, Florida, Illinois, Maryland, New York and Washington, as well as a hodgepodge of Federal Instructions. Stephen G. Gilles, has also examined jury instructions, many of which are not on Westlaw. They all use the reasonable man standard.\(^{76}\)

The typical negligence jury instruction is similar to that of California, Florida and Illinois:

**California:**

Negligence is the doing of something which a reasonably prudent person would not do, or the failure to do something which a reasonably prudent person would do, under circumstances similar to those shown by the evidence.
It is the failure to use ordinary or reasonable care.
Ordinary or reasonable care is that care which persons of ordinary prudence would use in order to avoid injury to themselves or others under circumstances similar to those shown by the evidence.
[You will note that the person whose conduct we set up as a standard is not the extraordinarily cautious individual, nor the exceptionally skillful one, but a person of reasonable and ordinary prudence.]

**Florida:**

Negligence is the failure to use reasonable care. Reasonable care is that degree of care which a reasonably careful person would use under like circumstances. Negligence may consist either in doing something that a reasonably careful person would not do under like circumstances, or in failing to do something that a reasonably careful person would do under like circumstances.
Illinois:

"[N]egligence" [is] the failure to do something which a reasonably careful person would do, or the doing of something which a reasonably careful person would not do, under circumstances similar to those shown by the evidence. The law does not say how a reasonably careful person would act under those circumstances. That is for you to decide.

This similarity, of course, is not an accident. The majority of states and U.S. courts follow the widely successful Second Restatement of Torts.
The upshot of this data is that jury instructions uniformly refer to the reasonable person standard, and have done since before the dawn of the modern crop of legal economists,\textsuperscript{78} and only a few appellate courts cite to the Hand formula. The evidence to date suggests that both the corrective justice theories and the formula are largely irrelevant to the actual operation of the legal system.\textsuperscript{79} As we said previously, we think this is because both rest upon a model that misconceives the phenomena under investigation. Matters involving high degrees of ambiguity and unpredictability, and that are amenable to common sense reasoning, will be decided, quite sensibly, through the exercise of common sense judgments rather than the of ill fitting and computationally intractable formulas. Negligence can arise in virtually any human interaction, and thus its contours cannot be known in advance. The relevant variables are too numerous to allow computation, and thus again some form of judgment must be exercised. Last, and probably most importantly, judgments of negligence involve how people should muddle through in life. This is largely a matter of common sense understanding of society rather than a technical question requiring expertise.

Another natural test of our hypothesis will soon be run. The negligence section of the proposed draft of the Third Restatement of Torts includes a strongly worded, explicit endorsement of the Hand formula.\textsuperscript{80} This constitutes a significant departure from the negligence section of the Second Restatement of Torts.\textsuperscript{81}

\textsuperscript{78} The First Restatement, embracing the reasonable person standard, was published in 1934, for example.

\textsuperscript{79} Patrick J. Kelley and Laurel A. Wendt are conducting a state by state canvass to determine the content of negligence instructions. They have found no references to anything remotely like the economic conception of negligence. What Judges Tell Juries About Negligence: A Review of Pattern Jury Instructions, Kent L. Rev. (Forthcoming). See also Patrick J. Kelley, The Carroll Towing Company Case and the Teaching of Tort Law, 45 St. L. U. L. J. 731 (2001) (same).

\textsuperscript{80} Restatement (Third) of Torts § 4 (Discussion Draft 1999).

\textsuperscript{81} See Restatement (Second) of Torts § 283 (1965). The reporter for the Third Restatement is Professor Gary T. Schwartz. Schwartz has been a cautious critic of private-law centered tort law regimes. See, e.g., Gary T. Schwartz, Reality in Economic Analysis of
An actor is negligent in engaging in conduct if the actor does not exercise reasonable care under all the circumstances. Primary factors to consider in ascertaining whether conduct lacks reasonable care are the foreseeable likelihood that it will result in harm, the foreseeable severity of the harm that may ensue, and the burden that would be borne by the actor and others if the actor takes precautions that eliminate or reduce the possibility of harm.

If anything could boost the Hand formula, we suspect it is the approval of the American Law Institute. For reasons we have identified, we doubt even this will be sufficient, but we shall see. We note, as well, the temporizing of the third restatement; the Hand formula is a primary factor, but certainly not an exclusive one.\textsuperscript{82}

V. The Illinois and Louisiana Cases: A Natural Experiment

\textsuperscript{82} One scholar, reacting to the draft in the Third Restatement believes that the Hand formula can accommodate both economic and fair accounts of negligence law. Kenneth W. Simons, The Hand Formula in the Draft Restatement Third of Torts: Encompassing Fairness as Well as Efficiency Values, 54 Vand. L. Rev. *** (2000).
Some have claimed that the cases actually are decided consistently with
the Hand formula, regardless of how juries are instructed. This could be
because juries instinctively return verdicts consistently with the Hand formula
regardless how they are instructed or because judges revise verdicts to bring
them in line with the formula. The first strikes us as exceedingly unlikely for
various psychological and sociological reasons, and little more than a wishful
expression of faith from the (supposedly scientific) economists. It is similarly
unclear to us how judges might bring Hand-like rigor to verdicts, as the judges,
trial and appellate, are limited in their capacity to change jury verdicts.

Accordingly, we decided to search for evidence supporting this theory
of appellate decisions conforming negligence cases to the Hand formula by
examining a sample of negligence cases to see if one could tell from their facts
and judicial treatment of the verdicts whether the Hand formula or a proxy
seemed to be integral to decision. The difficulty with this, of course, is that, as
Judge Hand himself pointed out, the data do not exist, which one would think
would be a devastating critique of the economic position. Still, this opens up the
field for creative explanations as to why liability served economic efficiency just
right. We must say that looking at the Illinois cases leads to the distinct
impression that a justification for them in terms of economic efficiency can only
lead to great admiration for the creativity but not the veracity of the effort.
Indeed, for the cases that we looked at, we suspect it would be hard to make
such arguments with a straight face.

83 We do not see how to test the claim that the results in tort cases are consistent
with any particular corrective justice model. We suspect in any event that such a claim would
be circular (juries are the voice of the community . . . and so on).
Our interest in the veracity of the economic explanation of negligence was sparked in part by the notorious and shocking case of Lee v. CTA. As we describe below, Lee cannot be explained by the microeconomic arguments.

Perhaps, though, Lee is an aberration. To search for evidence of this possibility, we searched for the word "negligence" in the Illinois Supreme Court cases from December 1, 1991 through December 7, 1993 (the two years surrounding the Lee case). The search generated 47 cases. In 38 of the cases, not even the most creative interpreter could find a hint of a reference to economic theories of negligence (the cases largely deal with other issues).

Of the remaining 9 cases dealing more fully with negligence, 8 give no support to the economic argument whatsoever, and one gives only mild support. Perhaps this two year period is aberrational. To account for this possibility, we expanded our search to a ten year period. The ten year search confirmed that

84 Search String: All Sources > States Legal - U.S. > Illinois > Cases and Court Rules > By Court > IL Supreme Court Cases. Terms: negligence and date (geq (12/1/1991) and leq (12/7/1993)) (Edit Search). Results: 47

85 The word appeared in the opinions for various reasons, such as simply noting the underlying cause of action, and so on.

86 We searched the Westlaw Supreme Court of Illinois database for the term "negligence" for the period beginning December 1, 1991 and ending December 1, 2001. This search produced 248 cases, including the cases from the 1992-93 time period examined above. Obviously, this search produced a variety of cases dealing with torts as well as many other substantive legal issues, such as post-conviction review of criminal cases. In order to throw the net as widely as possible, each of the 248 cases was read to determine if the Hand formula or an implicit equivalent formed the basis of a rule of decision or the reasoning behind the holding. In no case did the Hand formula or any form of balancing consequences form the sole basis of the rule or rationale of the case. At best, the Supreme Court of Illinois balanced the consequences flowing from the case at hand in the context of a variety of other prominent facts, including the reasonable person standard, the relevant precedent and the expectations of the parties. See, Relsolelo, ex rel. Arellano v. Fisk, 198 Ill.2d 142, --- N.E.2d ---, 2001 WL 1474875 (Ill., Nov 21, 2001); People v. Gosier, 2001 WL 1243645 (Ill., Oct 18, 2001); Burger v. Lutheran General Hosp., 198 Ill.2d 21, 759 N.E.2d 533, 259 Ill.Dec. 753; Harrison v. Hardin County Community Unit School Dist. No. 1, 197 Ill.2d 466, 758 N.E.2d 848, 259 Ill.Dec. 440; Travelers Ins. Co. v. Eljer Mfg., Inc., 197 Ill.2d 278, 757 N.E.2d 481, 258 Ill.Dec. 792; State Farm Mut. Auto. Ins. Co. v. Smith, 197 Ill.2d 369, 757 N.E.2d 881, 259 Ill.Dec. 18; Norskog v. Pfiehl, 197 Ill.2d 60, 755 N.E.2d 1, 257 Ill.Dec. 699 (Ill., Jul 26, 2001); Langendorf v. City of Urbana, 197 Ill.2d 100, 754 N.E.2d 320, 257 Ill.Dec. 662 (Ill., Jul 26, 2001); Morris v. Margulis, 197 Ill.2d 28, 754 N.E.2d 314, 257 Ill.Dec. 656 (Ill., Jul 19, 2001); Village of Bloomingdale v. CDG Enterprises, Inc., 196 Ill.2d 484, 752 N.E.2d 1090, 256 Ill.Dec. 848 (Ill., Jun 21, 2001); Welch v. Illinois Supreme Court, 322 Ill.App.3d 345, 751 N.E.2d 1187, 256 Ill.Dec. 350 (Ill.App.
the original two year study was representative of Illinois jurisprudence. We report the details of the cases in the two year sample below.\footnote{Mr. Rosenberg will provide our research notes on the remaining eight year sample to any interested scholar.}

Louisiana is different. The appellate cases in Louisiana have both accepted the Hand formula as the meaning of negligence and attempt to employ it directly in their decisions, and it is the only state that does so, so far as we could discover. We give examples of this below, as well, for it indicates that courts can, indeed, attempt to mold negligence cases into the economic form. That every other state but Louisiana does not is good evidence of the limited impact of this version of microeconomic reasoning.

We start with the Lee case, as it first brought our attention to this issue, and we then discuss the eight other cases from this two year sample.
1. Lee v. CTA\textsuperscript{88} dealt with the following facts, taken from the dissenting justices' opinion:

This case demonstrates once again the casino-like atmosphere of our tort system. A drunken 46-year-old Korean immigrant whose blood alcohol was 0.341, or three times the legal limit for intoxication under the motor vehicle code, walked off the sidewalk and up the Chicago Transit Authority railroad tracks where he was electrocuted by the so-called third rail which supplies power to the electric trains. At his point of entry, the decedent walked past three warning signs, "DANGER," "KEEP OUT" and "ELECTRIC CURRENT." These signs were printed in English which the decedent could not read. With a 0.341 concentration of blood alcohol, however, it is questionable whether it would have mattered if the signs had been printed in Korean or even in pictures. The decedent was virtually blind drunk.

In addition to the signing, sharp triangular shaped boards had been installed between the sidewalk and the third rail to make it extremely difficult and awkward for a person to walk up the tracks. Nonetheless, the decedent walked up the tracks approximately 6½ feet to the point where the third rail began. There, attempting to urinate, he was electrocuted.

We think it rather plain that it cannot be established that utility is maximized here. Mr. Lee had numerous cheap methods of avoiding this accident available to him, such as not getting blind drunk, having someone look after him, relieving himself anywhere but on the electrified rail of the CTA, etc.

The CTA, by contrast, would have had to anticipate all analogous ways in which blind drunks might hurt themselves and provide nearly foolproof mechanisms for stopping them from doing so. In fact, the CTA presented evidence of the substantial cost of providing alternative security methods that would keep the blindly drunk from urinating on the third rail. This considerably understates the cost to the CTA, however, as \textit{a priori} the CTA had no knowledge that this is how a blindly drunk person would be electrified. Apparently Mr. Lee’s representatives did not contest cost. Nonetheless, the Supreme Court of Illinois affirmed a jury verdict for Mr. Lee without anything

remotely like an economic cost benefit analysis. Although it mentioned some of the economic factors, the Court explicitly disregarded the cost to the CTA rather than attempt to determine relative costs and benefits:

Here, the close proximity of the third rail to the sidewalk significantly increased the likelihood of injury to pedestrians who used the sidewalk. At trial, the CTA presented evidence that alternate means of guarding the right-of-way against pedestrian entry could be problematic to install and maintain. That notwithstanding, we believe that the risk of serious injury or death to a pedestrian as a result of contact with a third rail located at grade level, in close proximity to a sidewalk, outweighs any burdens associated with more formidable safeguards or, at the least, adequate warning.  

Perhaps the CTA should be insurers against blind drunks coming into contact with the third rail, but there is nothing in this case indicating that their doing so is utility maximizing or economically efficient. That there is not even a discussion in the case of the a priori risk, obviously a necessary component in a cost/benefit analysis, supports this conclusion.

The eight cases decided within a year of Lee likewise give essentially no support for the economic argument:

2. Gill v. Foster\textsuperscript{90} was a medical malpractice suit disposed of on summary judgment. The Plaintiff failed to follow his doctor’s repeated advice to transfer facilities. Injury to the Plaintiff occurred shortly after a nurse failed to diagnose a pre-existing problem. The Court of Appeal and the Supreme Court upheld the dismissal without any reference to costs or economic efficiency.

\footnotesize{\textsuperscript{89} 605 N.E.2d 493, 502.}

\footnotesize{\textsuperscript{90} 157 Ill. 2d 304 (1993).}
3. In Uhrhan v. Union Pac. R.R. Co., a railroad worker was injured when he tripped over debris in the night. The issue was whether the trial court correctly instructed the jury on contributory negligence. The appellate court determined the trial court had erred and that contributory negligence was not at issue in the case. The plaintiff could not have been expected to be more careful than he was because his job was to keep an eye not on the ground but on the train signals. The Illinois Supreme Court observed that contributory negligence instructions are appropriate if there is something to suggest the plaintiff did not follow the rules of the employer. In this case, there was a rule to watch out for and report any debris on the ground. It was thus a question for the jury, not the appellate court, whether the plaintiff had acted reasonably. The opinion contains no discussion of comparative costs and benefits.

4. Curatola v. Niles focuses on whether the plaintiff was an intended and permitted user of the part of the road of which he sustained injury, but there is a short discussion of negligence. Plaintiff injured his ankle when he stepped out of his truck and into a pothole after unloading goods while parked on the street. Economic efficiency clearly does not explain the outcome:

\[91\] 155 Ill. 2d 537 (1993).

\[92\] 154 Ill. 2d 201 (1993).
We do not consider lightly the claim by Niles and the City that a duty to maintain the streets for persons exiting and entering lawfully parked vehicles is burdensome. Today, the resources of many local governmental entities are reduced even as insurance costs rise. Thus, we carefully consider the relevant factors pertaining to the imposition of a duty: (1) foreseeability that the defendant's conduct will result in injury to another; (2) likelihood of injury; (3) the magnitude of guarding against it; and (4) the consequences of placing that burden upon the defendant. As the parties admit and our case law demonstrates, it is entirely foreseeable as well as likely that such injuries will occur. We note that municipalities are at present charged with the duty to maintain parking lanes for vehicles. We fail to appreciate that costs to maintain those areas for the operators and occupants getting into and out of those same vehicles are prohibitive of any duty to those persons. Further, contrary to the City's assertion, the standard of reasonable care to maintain parking lanes for such users is not equivalent to the standard of care owed to pedestrians on sidewalks. We note, too, that regardless of the burden, the entire community ultimately bears the risk. To that end, the risk under these circumstances is best spread among all members of the community by imposing such duty upon local entities. "Duty' is not sacrosanct in itself, but is only an expression of the sum total of those considerations of policy which lead the law to say that the plaintiff is entitled to protection." We believe that public policy and social considerations of these times and of our community require that a duty to maintain the immediate street around lawfully parked vehicles be placed upon local governmental entities.

5. In Thompson v. County of Cook, Thompson, a passenger, was killed in a single car accident when the driver of the car missed a curve while trying to evade a police car in pursuit. The driver was legally intoxicated. Thompson's family alleged negligence against the county for failing to post adequate warning at the approach to the curve. In disposing of the case, the court said, without mentioning anything remotely related to economic efficient:

93 Id. at 214.

94 154 Ill. 2d 374 (1993).
The plaintiffs nonetheless contend that the signs at the curve where the accident occurred were inadequate and that the county's negligence caused the accident which resulted in Thompson's death. Illinois courts have long distinguished, however, between condition and causation. This court recognized that distinction, defining proximate cause as follows: "The cause of an injury is that which actually produces it, while the occasion is that which provides an opportunity for causal agencies to act." If a defendant's negligence does nothing more than furnish a condition by which injury is made possible, that negligence is not the proximate cause of injury. Proximate cause is also absent where the independent acts of a third person break the causal connection between the alleged original wrong and the injury. When that occurs, the independent act itself becomes a proximate or immediate cause. Gittings' actions in driving while drunk, speeding, eluding the police, and disregarding traffic signs were the sole proximate cause of this accident. Sutton Road provided nothing more than a location where Gittings' negligence came to fruition.  

6. DiBenedetto v. Flora Township, is yet another negligence case with no obvious connection to the economic arguments:

The gist of the complaint in this case was that the ditch along the road was not safe to be driven in. The question is, Does the defendant township have a duty to the motoring public to make its drainage ditches which run parallel to the traveled way to be safe for vehicular traffic? We hold not. There is no claim here that the traveled portion of the road, including the shoulder, was anything but safe. The drainage ditch was there for the purpose of receiving surface water and thereby protecting the traveled way from flooding. It was not designed to carry vehicular traffic. The right-of-way had three component parts, namely, the traveled way, the shoulder and the drainage ditch. Each of the parts was fulfilling its intended function. What happened in this case was that decedent, for whatever reason, lost control of his car, drove across an oncoming lane of the roadway, on across the shoulder and into the ditch where his car overturned and he was killed.

Drainage ditches along streets and highways are both commonplace and necessary. People are not expected to drive in them and the public

---

95 Id. at 383.

96 153 Ill. 2d 66 (1992).
cannot be an insurer of those who do. Although there is a paucity of cases on this issue, we interpret that lack to the fact that the conclusion is obvious and that the opposite result would be contrary to normal expectations and experience in the affairs of life. Neither a township nor a municipality is an insurer against all accidents occurring on the public way.

7. Hutchings v. Bauer has some language consistent with the economic arguments, but largely seems to ignore them:

Defendants operated a horse-training business, part of which was located near a curve in the public road. Cars had missed the curve a number of times over the years, so defendants asked the township to install a guardrail. The township denied the request and defendants built their own barrier in order to protect themselves, their property and their horses. They notified the Lake County highway department by letter that they had built a "barricade of large posts" on their property to stop drivers who failed to make the curve.

The plaintiff, Michael Hutchings was driving his motorcycle along the Road. The speed limit for this area was 35 miles per hour, but the "advisory" speed limit as posted for the curve they were entering was 25 miles per hour. In order to warn motorists of the curve, several signs were posted along the road. Plaintiff was negotiating the curve at a speed which he estimated to be 35 to 37 miles per hour when he hit some loose gravel, slid across the gravel shoulder for 10 or 15 feet, and then went onto the grass to the right of the shoulder where he traveled some 50 to 100 yards. Then, still upright and traveling on the grassy area at a speed between 15 and 20 miles per hour, plaintiff felt that he was still going too fast to safely turn back onto the road. Instead of either slowing or stopping, he decided to drive between two of the defendants' vertical posts. As plaintiff attempted to pass through the posts at a speed of about 15 miles per hour, he hit a horizontal log or post which ran between the vertical posts. Plaintiff was unable to see the log due to the grass which had grown up around it. As a result of striking the barrier, plaintiff sustained severe and permanent injuries.

97 149 Ill. 2d 568 (1992).
Defendants had a right to operate their horse training farm and to take reasonable precautions to protect themselves, their fencing and their horses from incursions of motor vehicles over and across their land. The defendants were under no duty to dedicate and donate their land to the public without compensation for use as a traveled way. To hold otherwise would constitute a denial of substantive due process.

It is also to be noted that the barrier which the defendants constructed was a reasonable barrier. It was not designed to cause injury or harm. It was not a pit or a trap. Except for the bottom horizontal log which was obscured by tall grass, it was quite visible. It was intended solely to stop the movement of vehicles across the defendants’ property for the protection of the defendants. It was not dangerous, save in the sense that it was a barrier.

It is also to be noted that the plaintiff chose to drive his motorcycle around the curve at a speed 10 to 12 miles above the "advisory" speed limit posted for the curve.

8. In American Nat'l Bank & Trust Co. v. National Advertising Co.,98 the court mentions that the cost to the defendant of avoiding the accident were low. However, plainly that is just one factor among many that the court views as relevant to the nature of negligence. Lukas was electrocuted while working on a billboard scaffold, and the administrator of his estate sought to collect damages from the lessee of the sign.

The parties agree that decedent came into contact with the electrical wire as he was transferring from the walkrail to the ladder. Photographs of the accident site reveal that, at least in the light and from the angle at which the photographs were taken, the wire is clearly visible. Thus the danger was arguably open and obvious.

"Foreseeability means that which it is objectively reasonable to expect, not merely what might conceivably occur." Since the purpose of the walkrail was to allow workers to walk the full length of the sign in order to make repairs, it was objectively reasonable to expect that a worker could come into contact with a power line that hung only 4 ½ to 5 feet above

98 149 Ill. 2d 14 (1992).
the walkrail. It was also reasonable to expect that a worker might be
distracted by having to watch where to place his feet, and consequently
would not be aware of or remember the presence of the electric wires.
Thus, defendant had reason to anticipate an injury such as the one
which occurred.

Further, the burden on defendant to protect workers against the
hazardous power line would not have been heavy. National might have
shortened the walkrail so that it no longer ran under the power line.
Alternatively, National might have demanded that the utility company
relocate the power line. At very little expense or inconvenience, National
might have warned workers of the hazard. For the above reasons, we
find that National owed a duty of reasonable care to the decedent.

The record reveals that some workers on the sign had not noticed the
overhanging wires; there is also testimony from one worker that he had
seen the wires and was aware of the danger they represented. The trier
of fact must evaluate all the evidence.

9. Wojdyla v. Park Ridge, the plaintiff's decedent was hit by a car while
walking across the street to his own parked car. Plaintiff alleged negligence on
the part of the city for not providing adequate lighting. The court decided in
favor of the city, holding that the city had no duty of care because decedent was
not an intended user of the street as he was not crossing at a crosswalk:

This court long ago recognized that a municipality is not required to
provide improvements such as lights or crosswalks, although where it
endeavors to do so it must not be negligent in this undertaking.

Plaintiff did make an economic argument that the court rejected:

Plaintiff also asserts that it would be unreasonable to expect the
decedent to have walked the mile round trip which would have been
necessary to use a crosswalk to cross the street to his legally parked
car. Plaintiff's argument here, in essence, is that the absence of a
crosswalk shows or creates an intent by the City that pedestrians be
allowed to cross highways at will wherever street parking is allowed, and

---

that the City, when it illuminates a street, must light the street adequately for their use. Inasmuch as the City is not required to provide crosswalks in the first place, we fail to see how the absence of crosswalks can give rise to such a duty.

The Illinois cases in 1992 and 1993 provide no support for the economic theory of negligence. The cases do not attempt to impose the economic theory on the results of verdicts, and the facts of the cases cannot plausibly be reconciled with the theory, although the cases indicate the banal point that relative costs and benefits are not irrelevancies. Even though our sample was not randomly selected, this is significant evidence disconfirming the economic argument. In any particular case, an appellate court may not need to invoke the economic arguments even if those arguments capture the court's view on the legal phenomenon. However, this is a string of 9 cases in a row. Suppose the probability of a court invoking and relying upon the economic arguments in a jurisdiction where negligence is fashioned from them is .5. In other words, half the time the court discusses efficiency or whatever, and half the time there is no need to. Assuming independence, the probability of a string of 9 consecutive cases not relying on the economic perspective is .5⁹ or about 1 in 500. More plausibly, if the probability that a court discussing the nature of negligence would actually discuss what it believed that nature to be were more like .8, then the probability of having a string of 9 straight cases such as these would be .8⁹ or about 1 in two million. And actually, the reality of the Illinois cases over this period of time is 47 consecutive cases mentioning negligence without one rigorously tying the concept to the economic arguments.

Moreover, we found nothing inconsistent with the data above when we expanded the research to cover a ten year period. There is simply very little or no evidence in the Illinois cases of the appellate courts attempting to fashion negligence cases into an economic form. In any event, the proposition that the Illinois cases do not provide support for the economic arguments can easily be

---

100 Clearly a false assumption, but one made for ease of exposition.
disconfirmed if it is false by an even further extension of our work. What we
have provided is so startling that we believe it satisfies our purposes here.

The Louisiana cases, from the one state explicitly adopting the Hand
formula, could not be more different from the Illinois cases. The cases speak
so clearly for themselves that we simply reproduce relevant excerpts from
Dobson v. Louisiana Power & Light Co., the Supreme Court of Louisiana
case adopting the Hand approach, and one standard courts of appeals
treatment of the issue. First, from Dobson:

The generally accepted view is that negligence is defined as conduct
which falls below the standard established by law for the protection of
others against an unreasonable risk of harm. Restatement (Second) of
Torts, § 282 (1965); Harper, James & Gray, supra § 16.1 at 381-382;
Prosser & Keeton on Torts, § 31 (5th ed. 1984). The test for determining
whether a risk is unreasonable is supplied by the following formula. The
amount of caution "demanded of a person by an occasion is the
resultant of three factors: the likelihood that his conduct will injure others,
taken with the seriousness of the injury if it happens, and balanced
against the interest which he must sacrifice, or the cost of the precaution
he must take, to avoid the risk.". L. Hand, J. in Conway v. O'Brien, 111
F.2d 611, 612 (2d Cir.1940). If the product of the likelihood of injury
multiplied times the seriousness of the injury exceeds the burden of the
precautions, the risk is unreasonable and the failure to take precautions
or sacrifice the interest is negligence. Id. See also, Levi v. SLEMCO,
3d Cir.1967); Harper, James & Gray, supra § 16.9. The foregoing
conception has been referred to by legal scholars as the "Hand formula,"
the "Learned Hand test" or the "risk- benefit" balancing test. See
Prosser & Keeton, supra § 31 at 173 n. 46; Harper, James & Gray,
supra § 16.9 at 468 n. 5; G. Rodgers, Rationality and Tort Theory, 54
S.Cal.L.Rev. 1, 8 (1980); R. Epstein, A Theory of Strict Liability, 2
J.Legal Stud. 151, 154 (1973); R. Posner, A Theory of Negligence, 1
J.Legal Stud. 29, 33 (1972); G. Calabresi & J. Hirschoff, Toward a Test

It assists us to concentrate here on the costs of the precautions
necessary to avoid the accident because the magnitude of the danger

\[101\] 567 So.2d 569, 574-576 (La., 1990) footnotes omitted.
caused by the conduct of either Dobson or LP & L was extreme. If the risk that a person might come into contact with the bare high voltage distribution line were to take effect, the anticipated gravity of the loss was of the highest degree. Dobson's conduct in lowering himself down the tree trunk with a metallically reinforced safety line dangling below near the electric wires substantially increased the possibility of such an accident. But so did LP & L's conduct in transmitting high voltage electricity through its uninsulated distribution lines in a residential subdivision without regular inspection of its equipment and right of way, regular maintenance of its right of way by trimming unsafe trees and limbs, insulation of its lines in close proximity to trees, or installation of adequate warnings of the dangerous uninsulated condition of the distribution lines. The chances of an accident were further increased when LP & L, by refusing to respond to Mrs. Davidge's complaints, encouraged her to take it upon herself to remove the limbs and trees in close proximity to the uninsulated distribution lines. The odds of an electrocution were raised again when LP & L failed to warn Dobson specifically of the uninsulated distribution lines although the company had knowledge that he was a new, inexperienced tree trimmer working in the neighborhood where the lines were located.

Confining ourselves to the factor of the cost of taking an effective precaution to avoid the risk, it appears to us that the cost or burden of eliminating the danger would have been greater for Dobson than for LP & L. As we have indicated, the power company had a number of relatively inexpensive, efficacious precautions available to it, e.g., inspection, maintenance, partial insulation, public education and visible warnings. Moreover, there was one particularly effective way in which LP & L could have eliminated the risk at little or no cost--by explicitly warning Dobson about the uninsulated high voltage distribution lines and telling him how to distinguish them from the insulated dwelling service lines. On the other hand, the cost to Dobson, who was ignorant of the characteristics of the uninsulated distribution lines and therefore unaware of their special danger, exceeded the cost to a person with superior capacity and knowledge. An actor with "inferior" capacity to avoid harm must expend more effort to avoid a danger than need a person with "superior" ability. See R. Posner, Tort Law: Cases and Economic Analysis 230-31 (1982).
Following the Supreme Court’s lead, the appellate courts in Louisiana routinely apply the Hand formula. Consider, for example, Pinsouneault v. Merchants and Farmers Bank & Trust Co:\footnote{738 So. 2d 172 (La App. 1999)}:

The test for determining whether a risk is unreasonable is supplied by the following formula. The amount of caution "demanded of a person by an occasion is the resultant of three factors: the likelihood that his conduct will injure others, taken with the seriousness of the injury if it happens, and balanced against the interest which he must sacrifice [or the cost of the precaution he must take] to avoid the risk." L. Hand, J. in Conway v. O’Brien, 111 F.2d 611, 612 (2d Cir.1940). . .

If the product of the likelihood of injury multiplied times the seriousness of the injury exceeds the burden of the precautions, the risk is unreasonable and the failure to take precautions or sacrifice the interest is negligence. Id. . . . The foregoing conception has been referred to by legal scholars as the "Hand formula," the "Learned Hand test" or the "risk-benefit" balancing test. . .

In the present case, where foreseeability of armed robbery at the night depository has been established, the likelihood that the bank’s failure to provide security would lead to the shooting death of a night deposit patron far outweighs the cost of installing surveillance cameras, cutting down shrubbery, upgrading lighting and/or extending a fence.

To reiterate, the point here is that courts are quite competent to engage in the Hand formula analysis if they choose to do so. The Louisiana courts do so as directed by their Supreme Court. The rest of the country does not. As we previously mentioned, Louisiana also permits a version of the Hand formula to be used in instructing juries. Louisiana thus appears to be the exception that proves the rule.

VI. Antitrust Law
The microeconomic explanation of antitrust law has been with us as long or longer than the microeconomic explanation of negligence. While negligence law has resisted the intrusion, antitrust law has welcomed it. This is no great surprise. The goal of antitrust law is typically phrased in economic terms; the purpose of the Sherman Act in the words of one widely circulated pattern jury instruction is to: "preserve and advance our system of free, competitive enterprise." Nonetheless, not all of antitrust law is explicitly procompetitive or, for that matter, governed by straightforwardly microeconomic demands. It is only necessary to look as far as the well-known defenses to Sherman Act claims, such as the Noerr-Pennington doctrine, or the immunity granted to labor organizations under the Clayton Act, to see that antitrust law is governed by a complex set of goals.

---

103 O'Malley, Grenig and Lee, Federal Jury Practice and Instructions, Section 150.01 (2001).

---

104
Moreover, no specific economic theory has captured antitrust law. The basic elements of a story we have watched unfold in other areas of the law has occurred in antitrust: strenuous attacks on Warren Court era jurisprudence led to initially successful but ultimately incomplete attempts to provide a coherent, general theoretical grounding. The Chicago school’s important successes did not prove robust enough to gather anything approaching consensus in the courts or academia. Indeed, by the late 1980s, leading antitrust scholars hostile to the Chicago school had hammered out a set of basic criticisms of the school and began predicting its demise. At approximately the same time the price-theoretic structure of the Chicago school came under a profound attack, the movement of economic theory outside the law began to be picked up by legal theorists. It pointed in directions which presented serious alternatives to the Chicago School position on efficiency and post-Chicago theorists began using a variety of approaches to model, among other things, the effect of informational deficiencies on antitrust rules. In somewhat of a parallel course, populist oriented antitrust scholars drew from international law, particularly from the European Union, a new source of strength that the notion of free competition embodied in antitrust law included principles of fairness and substantive justice. Legislatures and courts have not adopted the position of one or another of these camps; they have adopted an overwhelmingly microeconomic approach to antitrust.

105 See, Allen and Rosenberg, General vs. Local Knowledge.

106

107 A point made clear by the controversy which attends the seemingly endless interpretative effort concerning the Court’s recent antitrust opinions to provide evidence of a direct endorsement of one program or the other.
The growing importance of microeconomic analysis to antitrust law provides an interesting counterpoint to the resistance of negligence law to microeconomics. We begin by illustrating the progressive influence of microeconomics on a range of Sherman Act jury instructions. We then turn to the Section 1, Sherman Act Rule of Reason analysis, in order to examine in somewhat more detail the hold microeconomics has gained on antitrust over the last thirty years. Both examples provide important evidence that microeconomics has colonized Sherman Act jurisprudence in a gradual but thorough manner. Finally we turn to Section 1 Sherman Act rule of reason instructions because of the rough anologue they provide to tort law’s reasonable prudent person standard.

A. Selected Sherman Act Jury Instructions

The influence of economics on antitrust jury instructions over the past eighty years has been marked. Herbert Hovenkamp and Frederick Rowe have previously demonstrated that economics models have strongly influenced antitrust law at least since the 1930s.\(^\text{108}\) We take it to be no great surprise that jury instructions have tracked this trend.

In order to indicate the depth of the effect on antitrust law of microeconomic theory in a manageable fashion, we focus on two sets of jury instructions. First we present typical price fixing instructions, both horizontal and vertical. Along with cartels, price fixing is a core antitrust concept under the Sherman Act. The significance of these instructions is that they display an explicit tendency to require juries to consider many different economic methods of fixing prices. While this is obviously an intuitive approach to drafting a price-fixing instruction, this tendency to define in detail what constitutes price fixing in economic terms has changed over time. In the last thirty years, price fixing instructions have become far more rigorous in their description of the methods of price fixing.

\(^\text{108}\) Rowe, The Decline of Antitrust, Hovenkamp, Antitrust After Chicago.
Second, we examine jury instruction defining monopoly as an example of the impact of economics on a specific areas of antitrust law. One striking aspect of the history of these instructions is the pronounced tendency to focus the attention of the jury on the market share of the defendant. Over the last forty years, at least, market share has assumed greater importance and juries have been instructed to look at a longer list of facts from which to induce market share.

First price fixing. We begin with a typical price fixing instruction from the 1920s:

We are naturally led to inquire as to what is the character of the agreement or understanding charged which the Government claims was in violation of the Sherman law, or, on the other hand, what was the character of the conduct of the members of this combination which it claims brands that combination as illegal under the Sherman law. On this head, first and most important, let me advise you, so that there cannot be any possible misunderstanding in your minds that it is illegal and a violation of the Sherman law for a group of independent units, that is, individuals or corporations, operating in combination such as a trade association of the character shown here, to agree amongst themselves to fix the prices to be charged for the commodity which the members manufacture, where they control a substantial part of the interstate trade and commerce in that commodity. That proposition you should bear clearly in mind.  

This is an obvious, direct instruction. Perhaps for this reason it remained durable through the 1950s. By the 1960s, however, a more complicated instruction became typical:

Thus, any direct interference by contract, or combination, or conspiracy, with the ordinary and usual competitive pricing system of the open market constitutes an unreasonable restraint of trade, and is in itself unlawful. The mere fact that there may be business justifications for the fixing of prices, or the fact that the wholly or partially fixed prices may be reasonable, will not relieve the members of the price-fixing combination or conspiracy from liability under the antitrust laws.

---

109 United States v. Trenton Potteries Co.
On the other hand, the mere fact that pricing systems of persons engaged in the same business or industry may be substantially similar does not, in and of itself, indicate a price-fixing combination or conspiracy, but may be consistent with ordinary competitive behavior in a free and open market.

If you find from the evidence in these cases that the defendants, or two or more of them, have knowingly and willfully agreed or conspired, whether tacitly or expressly, to raise, lower, maintain or standardize admission prices, or have attempted to regulate or control of fix admission prices in any way or manner, or by any means or method, you must find that such defendants have violated the antitrust laws.\footnote{Paramount Loew's (Syndicate Theatres, Inc.) Warner Bros., Civil No. _____ (D. Ind. 1963)}

The shift from the earlier instruction that forbids an agreement “to fix the prices to be charged for the commodity which the members manufacture, where they control a substantial part of the interstate trade and commerce in that commodity,” to one referring to “competitive pricing systems of open markets” and “ordinary competitive behavior in a free and open market” is striking, and, we suspect, evidence of the effect of microeconomics.

The current ABA sample jury instructions on horizontal price fixing and vertical minimum resale price fixing continue this process:

Plaintiff claims that it was injured because defendants conspired to fix the prices for \textit{product X}.

Under the Sherman Act it is illegal for two or more competitors to enter into an agreement to fix, control, raise, lower, maintain, or stabilize the prices charged or to be charged for products or services. This prohibition is violated not only if the same price is set by competitors, but also if the range or level of prices is agreed upon or various price formulas are agreed upon. Any agreement to \textit{describe the price-fixing conspiracy alleged by plaintiff, e.g., to set a specific price, to maintain a floor under prices to increase the stability or firmness of prices, to establish a fixed spread between the prices of different sellers, to establish a fixed spread between wholesale and retail prices, to establish fixed markups or profit margins, to stabilize prices, to set credit terms or other conditions of sale relation to price} is illegal.
To win against a defendant on its price-fixing claim, plaintiff must have proved as to that defendant each of the following elements by a preponderance of the evidence:

First, that an agreement to fix the prices of [product X] existed;

Second, that that defendant knowingly — that is, voluntarily and intentionally — became a party to that agreement;

The microeconomic aspect of these price fixing instructions is plain, and again appear to demonstrate an increasing utilization of microeconomic concepts and jargon.

We turn now to the definition of a monopoly under Section 2 of the Sherman Act, which has not always included reference to even such a basic economic concept as market shares. Thus, a typical instruction from the 1930s runs:

[I]t does not have to be that these people were in complete control of the fur dressing industry. It is enough if there is a substantial control, whereby these people could fix their prices among each other and determine who was going to enter into this business within a limit. That would constitute a monopoly, even though not a complete domination by the group of particular activities. ¹¹¹

By the late 1950s, explicit discussions of the effect of size on monopoly claims began to find their way into jury instructions. Thus:

Now let me direct your attention back to the defining of “monopolization.” It is a series of restraint of trade. The term does not necessarily mean complete acquisition or control of the market in a particular community, or the exclusion of all competition. The size of a corporation, or the percentage of the market it controls are not by themselves indicators of a violation of the antitrust laws. However, these factors can indicate the degree or power which a corporation has in the competitive market and they can indicate the ability to exercise such power within the relevant market. If there is power to control or dominate such market, to exclude actual or potential competitors therefrom, or to otherwise unreasonably

¹¹¹ United States v. Fur Dressers Factor Corp.
suppress competition therein, this is sufficient to constitute monopolization under the antitrust laws.\textsuperscript{112}

By the 1970s, explicit descriptions of market share became commonplace:

Monopoly power is defined in the law as the power to control prices or exclude competition. Now, the existence of monopoly power ordinarily may be inferred from the fact that a company has the predominant share of the market. However, when a company does not possess a predominant share of the market, monopoly power cannot be inferred. The test is whether the defendant has the power to control prices or exclude competition. Furthermore, the size of the company alone is not monopoly power, but is only a factor which may be considered in determining whether or not a defendant possessed that power. However, both of these factors (1) the size of the company, and, (2) the percentage of the market it controls, may be considered as indicators as to the degree of power which a company has to control prices and exclude competition.

\textsuperscript{112} Park Neponset Corp. v. Smith, 258 F.2d 452 (1st Cir. 1958).
It is, of course, natural that some businesses grow larger than others, and, therefore, operate and sell on a much larger scale than a smaller competitor. In determining whether or not Bethlehem possessed monopoly power you may also consider the existence and proximity of other competitors in the relevant market, the responsiveness of the alleged possessor of such power to the pricing policies of those competitors or potential competitors and the possibility that others, not now competing, may enter the market. You may also consider the economic and commercial realities of the industry involved. Monopoly power to exist need not be exercised and it need not be absolute in the potential for market control which it gives to its possessor. If within the relevant market a company has then power to control prices or to exclude competitors then that company possesses monopoly power within the meaning of the antitrust laws.\textsuperscript{113}

Quite clearly, microeconomic analysis informs these instructions. Indeed, to some extent they represent an invitation for the jury to defer to a cluster of economic concepts, such as relevant markets, and to expert testimony about the markets in question. The current ABA sample instruction continues this trend.\textsuperscript{114}

\textbf{B. Rule of Reason Jury Instructions}

\textsuperscript{113} Belmont Industries, Inc. v. Bethlehem Steel Corp., 512 F.2d 434 (3d Cir. 1975).

\textsuperscript{114} 1999 ABA Sample Jury Instructions in Civil Cases, C-4. \textbf{Reproduce it.}
The rule of reason provides a particularly suitable test for the influence of microeconomic analysis on antitrust. Across the spectrum of antitrust law, it stands out as involving an unusually complex and ambiguous inquiry. Undoubtedly, this is because it entails, at the most general level, an analysis of “whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition.”

Despite a long history of refinement, tinkering and outright overhaul by the courts, it remains “an incredibly complicated and prolonged economic investigation” that is “often fruitless when undertaken.” Somewhat less charitably, a fair number of practicing lawyers regard it as a “euphemism for an endless economic inquiry resulting in a defense verdict.” We find it interesting because its application invites a complex, fact intense, and, to some, a standardless inquiry, which provides a rough analogy, to the reasonableness standards at the core of negligence.

Such complexity has driven the adoption of the large set of precedents that cabin the scope of the rule in one way or the other. It was not until the 1970s, that the “comprehensive network” of per se rules which served to limit the application of the rule of reason was decisively paired back by the Supreme Court. Shortly after opening the door to more vigorous application of the rule of reason, the Court began developing the doctrinal support for truncated applications of the rule, the so-called “quick look” or “flexible” rule of reason analysis. Predictably, no coherent theory has emerged from this process; instead a collection of more or less disparate standards that govern specific types of behavior has emerged. In the words of two astute practitioners, the rule...
has evolved “from rigid categories to flexible ‘common sense’; from rules of law to rules of thumb.” Views on the worth of this process are mixed; some see it as optimal, others as evidence that antitrust is adrift. We are, of course, agnostic on this point.

We are not agonistic on the accelerating pace of the colonization of rule of reason jury instructions by microeconomic analysis in the late 1970s. While we cannot put a specific date on this matter, an examination of rule of reason jury instructions shows that courts began in the 1970s to place microeconomic considerations to the forefront when instructing juries. This process continued through the heyday of the Chicago school and instructions from recent cases and the ABA model instructions are based four square on microeconomic concerns. We turn now to examples.

For some eighty-plus years, the basic statement of rule of reason analysis has remained that of Mr. Justice Brandeis in Chicago Board of Trade v. United States:

The true test of legality is whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition. To determine that question the court must ordinarily consider the facts peculiar to the business to which the restraint is applied; its condition before and after the restraint was imposed; the nature of the restraint and its effect, actual or probable. The history of the restraint, the evil believed to exist, the reason for adopting the particular remedy, the purpose or end sought to be attained, are all relevant facts. This is not because a good intention will save an otherwise objectionable regulation or the reverse; but because knowledge of intent may help the court to interpret facts and to predict consequences.

Justice Brandeis' formulation of the Rule of Reason left its imprint on jury instructions in two principal ways. First, juries were asked to assess the competitive significance of the restraint at hand and second they were invited to base their assessment upon a now standard list of facts relevant to the restraint and the parties. Thus, a typical jury instruction from the 1960s echoes
Justice Brandeis’ statement of the Rule by inviting juries to examine the specific context of a restraint:

As to the meaning of the term "restraint of trade," you are instructed that this general term applies only to unreasonable restraints and not to all possible restraints of trade. The antitrust law seeks to maintain free competition in interstate commerce, in order to protect the public interest. The end sought by the antitrust law is the prevention of unreasonable restraints in business and commercial transactions which tend to restrict production, raise prices, or otherwise control the market to the detriment of purchasers or consumers of goods and services; the public is to be protected in order to secure to them the advantages which accrue to them from free competition in the market.

Not all restraints of trade are unreasonable restraints. All business affects trade in some way. Therefore, in determining whether a "restraint of trade" exists, you must decide whether the conduct which you have found tends to restrict or otherwise control free and open competition. And in determining whether or not such an unreasonable restraint exists, you need not find a specific public injury, but you must find that the conduct tends or is reasonably calculated to prejudice the public interest.\footnote{Daily v. Quality School Plan, Inc., 380 F.2d 484 (5th Cir. 1967).}

Clearly, both Justice Brandeis' statement of the rule and this jury instruction rely heavily on microeconomic concepts. Both enjoin the factfinder to focus on the competitive effects of a restraint and to develop that assessment through economic calculations. Nonetheless, there is an important difference between these two formulations of the Rule: the jury instruction asks jurors to assess the restraint in terms of public interest. Obviously, this is a fairly supple imperative, and it is by no means clear that microeconomics and the public interest coincide on antitrust policy.

The instruction and Justice Brandeis' formulation of the Rule do share a fairly capacious list of factors for the jury to consider. Perhaps jurors would read into that list an assessment of the public interest. Because of a lack of data on how juries decide antitrust cases (or other cases) we cannot say; we are trapped at the level of the instruction. At the level of the wording, it is palpably
clear that putting in the words “public interest” matters. Moreover, the very looseness of the list of factors Justice Brandeis included in his statement of the Rule points out another reason the term “public interest” is significant. Justice Brandeis’ statement does not explain how a factfinder should balance the positive and negative effects of a restraint. Indeed, it is unclear if a factfinder must balance the positives and negatives, although a certain invitation to balancing is implicit in his words. All of the same may be said of the jury instruction. What is significant for our purposes is that the weak message sent on the balancing issue may reinforce the tendency of a juror to include his own perception of the public interest or antitrust policy.

By the 1980s, Rule of Reason instructions went through two transformations. They began dropping references to the public interest and they began to set explicit tests for measuring competitive effects. While Justice Brandeis’ list of factors remained, they began to play an equal role with the imperative to find an unreasonable restraint of trade only if the competitive harm of a restraint outweighed, or according to some courts, substantially outweighed the benefits of a restraint. Thus, a typical instruction from the 1980s reads:

In determining reasonableness there are three crucial inquiries you must make. First, you must determine whether [the defendant] has substantial market power to unreasonably restrain trade in the relevant market. Second, you must determine the effect of the restrictions on competition. Third, you must consider the justifications for imposing the restrictions. Now, as I just told you, the first inquiry you must make is to determine whether [the defendant] has substantial power to unreasonably restrain trade in the relevant market.

If you find that [the defendant] has substantial power to unreasonably restrain trade in the relevant market, you must then judge whether the restriction is unreasonable in its effect on competition. In other words, you must determine whether the restrictions employed constituted an unreasonable restraint of trade because they had an overall anticompetitive effect in the relevant market.

In other words, a restriction may reduce or diminish competition in some respects and at the very same time enhance or increase competition in other respects. For example, a restriction may reduce intrabrand competition but at the same time increase interbrand competition. If you
find that the restrictions in this case do impose some adverse restraint on competition which is more than trivial, and if you also find to exist procompetitive effects, then you must determine whether the anticompetitive effects of those restrictions outweigh the procompetitive effects. If they do not, you should conclude that [defendant]'s restriction is reasonable under the law.

You must decide what the "purpose" of the alleged restraints was. You must also consider the "effect" of the alleged restraints.

In order for you to find that [the defendant's] restrictions are unreasonable, you must be convinced that [the plaintiff] has proven by a preponderance of the evidence that the restrictions are anticompetitive in effect. [The defendant's] purpose in imposing the restrictions, by itself, is not sufficient to establish a violation of the Rule of Reason, although proof of purpose may help you assess the market impact of [the defendant's] restrictions. Absent anticompetitive effect, an unlawful intent or purpose is not enough to establish a Rule of Reason violation.

The focus of your inquiry must be the effect that [the defendant's] restrictions have on competition. The antitrust laws are designed to protect competition generally, not to protect any one competitor. Therefore, in making your determination of whether these restrictions constituted an unreasonable restraint on trade, you are not being asked to determine the effects of the restrictions on [the plaintiff.] A manufacturer or supplier, such as [the defendant], has a legitimate interest in the way its product is sold, and it may legally refuse to sell to any particular dealer.

The standard of reasonableness has a particular meaning in the law. To determine the reasonableness of [the defendant's] system, you are not to make a business judgment about whether [the defendant] has chosen the best system of distribution, or the one which you would have chosen had it been up to you. You are simply to determine whether this system is reasonable or unreasonable in its effect on competition.

In making your determination of whether the restrictions [the defendant] imposed on its distributors constituted a reasonable or unreasonable restraint of trade, you may consider whether the restrictions were reasonably necessary to meet the evil believed to exist prior to imposing the restrictions.
You may find that [the defendants] could have solved these problems by imposing other types of restrictions which might have been less restrictive than the system actually adopted by Amana. The existence of less restrictive alternative is relevant in determining whether the restrictions used were reasonably necessary . . .

In the final analysis, you must determine the following:

(1) Whether intrabrand competition is affected by the restrictions;

(2) Whether interbrand competition is affected by the restrictions;

(3) Balancing both these factors, to what extent is competition affected; in other words is there an overall procompetitive or an overall anticompetitive effect.

If you find that on balance competition is either enhanced or remains unaffected, then you would find the restrictions reasonable. If you find that on balance competition is harmed, that is, that the anticompetitive effects outweigh the procompetitive effects, then you would find the restrictions unreasonable.120

The most recent American Bar Association Model Instruction, the model presented in treatises and case law supports a hard microeconomic approach to the rule of reason. The American Bar Association Model Instruction reads:

Plaintiff challenges the practice of defendant[describe practice, e.g., to allocate territorial market areas for its distributors]. To win on this claim, plaintiff must show that this practice was an unreasonable restraint of trade.

In determining whether the restraint was unreasonable, you must decide whether the restraint helped competition or harmed competition. Your task is to balance any aspects of the restraint that were helpful to competition against any aspects that were harmful to it. In doing so, you should consider such factors as the particular business of defendant; the

---

120 Davis-Watkins Co. v. Service Merchandise, 686 F.2d 1190 (6th Cir. 1982), cert. denied, 104 S. Ct. 1718 (1984). These changes in antitrust instructions reflect the relevant case law. In 1977, the Court held, in the context an antitrust challenge to the National Society of Engineers canons of ethics, that “contrary to its name, the rule does not open the field of antitrust inquiry to any argument in favor of a challenged restraint that may fall within the realm of reason.” Rather, according to the Court, the Rule “The Rule focuses directly on the challenged restraint's impact on competitive conditions.” 435 U.S. 679, 685.
condition of the market before and after the restraint was imposed; the nature of the restraint and its effect on competition; the history of the restraint; the reason for adopting the restraint; and defendant's purpose or intent.

To show that the restraint was unreasonable, plaintiff must prove that defendant's activities substantially harmed competition in a relevant market. To show this, plaintiff must prove by a preponderance of the evidence:

First, what the relevant market is:

Second, that defendant's restraint or practice had a substantially harmful effect on competition in that relevant market; and

Third, that the harmful effect on competition outweighs any beneficial effect on competition.

The overall picture presented by the changes in Rule of Reason instructions is striking. Juries have been reined in by mandates to balance harms and to focus on specific markets, practices and products. Language which would encourage the jury to analyze the public welfare aspects of antitrust has been reduced if not deleted altogether. Significantly, while the instructions do not focus the explicit attention of the jury on efficiency, the range of issues left for the jury to analyze and the emphasis placed on balancing harms and competitive injury indicates that efficiency is an imperative. Nonetheless, what is most important for our purposes is the change over time; rule of reason instructions have become closely knit microeconomic blueprints. By contrast, negligence instructions have remained virtually constant over the last century.

Conclusion
Antitrust has been colonized; negligence does not appear to have been. The economic scholars got one right, and they probably got one wrong. The contributions of the corrective justice scholars to torts is perhaps somewhat more ambiguous, but the evidence indicates its irrelevancy. One area plausibly is subject to top down theorizing; one is not.

\[121\] For an analysis of another one the economists got "wrong" that bears a small resemblance to the interests of this paper, see Karen Eggleston, Eric A. Posner & Richard Zeckhauser, The Design and Interpretation of Contracts: Why Complexity Matters, 95 Nw. U.L. Rev. 91 (2000).
As we said in the introduction to this article, we presently make no claim about
the extension of our analysis. The primary contribution here is, hopefully, to make
plausible that legal phenomena and its regulation may be analyzed systematically (top
down theory though that may be), more important usefully, and most important not just
by reference to competing ideologies of lawmakers (whether judicial or legislative). 122

To us it is significant that the data are consistent with our theoretical predictions in two
analogous fields that have been of interest to economists (one of which has also been
of interest to corrective justice theorists). This is because one economist—Richard
Posner—has claimed that the charge of ineffectuality can be made of moral theorizing
but not of economic (and other "scientific") theorizing. 123 The data presented here
indicate that he is half right—some moral theorizing is apparently of little practical
consequence to the legal system—and half wrong—sometimes economic theorizing,
including the centerpiece of economic theorizing, is of little practical consequence to
the legal system. More important, our data suggest that Judge Posner’s (implicit)
explanation is quite wrong. It is not, or not just, that much moral theorizing is comprised
of half baked ideas promoted by hypocritical post-modern types whose only real
interest is pursuing their personal and ideological agendas and that economics by
contrast is a science pursued disinterestedly by hardheaded realists. Instead it is at
least in part that some realms of legal regulation are more amenable than others to
being organized by reference to simple theories, and that legal theorists may have
neglected this point. 124

122 This seems to be the standard explanation for the lack of systematicity in the law.
See, e.g., Jeremy Waldron, Transcendental Nonsense and System in the Law, 100 Colum.
L. Rev. 16, 41-42 (2000) (“the lack of system in the existing law is not due merely to the
existing lawmaker’s paying insufficient attention to systematicity. It is due primarily to the fact
that modern legal systems are open to change at the hands of different lawmakers, with
differing and often opposed priorities, programs, and values.”). Surely some legal phenomena
are so explained; we have tried to show that some are not. They are explained instead by being
too ambiguous or unpredictable to be confined by a “system.”

123 Posner, The Problematics of Moral and Legal Theory, 111 Harv. L. Rev. 1637
(1998); cite to book as well; Richard A. Posner, On the Alleged "Sophistication" of Academic

124 One of the difficulties with Posner’s argument is, as Jeremy Waldron, Ego-Bloated
Hovel, 94 Nw. U. L. Rev. 597, 617 (2000) argues, that “in order to sustain his main thesis, he
would need an alternative strategy to show that the sort of argumentation offered by thinkers
like Rawls and Dworkin on matters of public policy is as inconclusive and inefficacious in court
and in politics as it evidently is in academia." Exactly, which is what we are trying to provide in part. We see the recent work by Daniel A. Farber, Do Theories of Statutory Interpretation Matter? A Case Study, 94 Nw. U. L. Rev. 1409 (2000), in which he presents evidence suggesting that they do not matter very much, as providing support for our more general thesis.

The reason theories of statutory interpretation do not matter much is that the reality of statutes and the problems posed are complex, not simple, and thus that simple theories would be inappropriate. They are consequently, and sensibly, ignored by the judges, even the judges espousing the theories.
We thus think that not only is Judge Posner wrong in part, so too is one of his critics with respect to the significance of philosophy for the law, Charles Fried. In an arresting metaphor, Fried wrote:

The picture I have, then, is of philosophy proposing an elaborate structure of arguments and considerations which descend from on high but stop some twenty feet above the ground. It is the peculiar task of the law to complete this structure of ideals and values, to bring it down to earth; to complete it so that it is seated firmly and concretely and shelters real human beings against the storms of passion and conflict. That last twenty feet may not be the most glamorous part of the building — it is the part where the plumbing and utilities are housed. But it is an indispensable part. The lofty philosophical edifice does not determine what the last twenty feet are, yet if the legal foundation is to support the whole, then ideals and values must constrain, limit, inform, and inspire the foundation — but no more. The law is an independent, distinct part of the structure of value.

---


While purportedly explaining the independent significance of the law, the condescension in this passage is striking. It is not the law hovering majestically over philosophers who, in their petty squabbles, are struggling to be heard; rather, it is the philosopher (kings?) with their arguments "which descend from on high." Dworkin has an equally high opinion of jurispruders, describing them as the "princes" of "law's empire," and its "seers and prophets." Posner has his privileged class as well. Without getting into a battle of metaphors, we have tried to show not that law's royalty — of whatever kind — does not have much of an impact on any aspect of the field but rather to begin the process of specifying why and when the theorists might matter. Or why and when different kinds of theory might matter.

127 Ronald Dworkin, Law's Empire 407.

128 Even within what Posner could classify as “science,” though, analogous debates about the utility of generalization proceed rather robustly. Compare, for example, Edward O. Wilson, Consilience: The Unity of Knowledge (1998), with Jerry Fodor, Look!, London Rev. Books, 10-29-1998, at p. 3; Evelyn Fox Keller, The Century of the Gene (2000), with John Maynard Smith, The Cheshire Cat's DNA, New York Rev. Books, 12-21-2000, p. 43. See also, Margaret Morrison, Unifying Scientific Theories (2000) arguing that the urge to simplify and unify, while important to science, plays a considerably more muted role than is conventionally believed. For an argument that the inability to generalize, to provide a top down theory for, American constitutional law is a good thing see Philip Bobbitt, Constitutional Interpretation (1991). We hasten to add that we are not making normative claims in this article.

129 Thus, our argument differs significantly from Posner's attack on academic moralizing. Posner, The Problematics of Moral and Legal Theory, 111 Harv. L. Rev. 1637 (1998); cite to book as well. We are trying to discern the nature of legal phenomena that permit or invite one form of inquiry and explanation rather than another. A priori, we have no good reason to assert that academic moralizing of the Posnerian kind could never influence the outcomes in or accurately explain a set of legal phenomena (although we suspect the set of such sets is small, but still it is an empirical question). Analogously, and this is the point that Posner may miss, a prior one should be cautious about thinking that any set of legal phenomena is amenable to top down theorizing of any kind. Perhaps Posner would not disagree, as there is some ambiguity in his writing. In Against Constitutional Theory, 73 NYU L. Rev. 1, 3, he states that “The big problem is not lack of theory, but lack of knowledge. . .” In Reply to Critics of The Problematics of Moral and Legal Theory, 111 Harv. L. Rev. 1796, 1803 (1998), he says “Consensus on ends or goals is found in some areas of law, but not in all.” And at p. 1811 he says, “judges routinely confront issues that cannot be resolved by the application of an algorithm.” Precisely, and we are trying to uncover whether one can specify the nature of such cases. Thus, perhaps Charles Fried is right that sometimes Philosophy Matters, 111 Harv. L. Rev. 1739 (1998); we would like some purchase on when or why. In any event, we are not interested here in an intellectual history of any particular thinker, but we do wish to note that Posner's comments quoted above seem to us somewhat at odds with an apparently stronger commitment to algorithms in Richard Posner, The Concept of Unenumerated Rights, 59 U. Chi. L. Rev. 433, *** ((1992) (“I agree there isn’t much to bottom-
up reasoning”), and at *** (“there must be a theory”). The strong position baffles us, both because it is inconsistent with obvious observations of the human condition and for formal reasons, such as what is the theory from which the necessity for a theory is deduced, and where did that theory come from? In any event, much of life, including legal life, involves muddling through, and we hope we have said something useful, even if obviously preliminary, about the nature of muddling.