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Re-Inventing Defenses/Enforcing Standards: The Next Stage of the Tort Revolution?

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I.

Ideas matter. In the law, legal ideas not only store the wisdom of the past, and help to constrain and legitimate today’s decisions; they also help to shape the future course of legal evolution. Ideas are not, of course, the only factor that shapes the future of the law. Law is an open system that responds to both its own internal logic and to its external environment. But in periods when the external forces affecting the law are relatively constant, the logic of the ideas in the law is an important factor shaping the future course of legal development.

In this Article, I explore the governing ideas that lie behind recent developments in tort law. These developments are some-

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1. It has always seemed obvious to me that ideas do matter in the law, since law (in one sense of the term) is a system for processing information. See Elliott, Regulating the Deficit After Bowsher v. Synar, 4 YALE J. ON REG. 317, 325-26 (1987). However, in recent years some skeptics, particularly in the “critical legal studies movement,” have appeared to deny that the ideas that we call legal rules and doctrines have any influence on outcomes in subsequent cases. See, e.g., Singer, The Player and the Cards: Nihilism and Legal Theory, 94 YALE L.J. 1, 19-20 (1984); Tushnet, Following the Rules Laid Down: A Critique of Interpretivism and Neutral Principles, 98 HARV. L. REV. 781, 819 (1983). To the extent that these propositions are testable, Peter Schuck and I have recently published an empirical study that contradicts the skeptics with evidence that strongly suggests that changes in legal rules do in fact have a quite pronounced effect on the pattern of results in subsequent cases. Schuck & Elliott, To the Chevron Station: An Empirical Study of Federal Administrative Law, 1990 DUKE L.J. 984 (1990).

2. Following Holmes’s model of the evolution of law, I have previously described these two sources of legal change as “internal” and “external selection.” See Elliott, Holmes and Evolution: Legal Process as Artificial Intelligence, 13 J. LEGAL STUD. 113, 140-41 (1984).
times grouped together under the provocative rubric, "the torts revolution." It is easy to overstate the practical importance of recent changes in the law of torts such as the fall of the "citadel" of fault in products liability, the rise of punitive damages, and the decline of statutes of limitations under the pressure of the discovery rule. Although there is no denying that the torts system as a whole has a multi-billion dollar effect on the economy, we are only beginning to marshal data based on sources more reliable than anecdote to suggest that changes in tort doctrine over the last generation have actually been important in expanding the scope of tort liability.

While the practical significance of the "torts revolution" is still being argued, there can be no denying its intellectual significance. Tort law holds great fascination for legal scholars today because it is one of the few areas, perhaps even the only area, of the common law in which the ideas that govern the system and constitute its basic intellectual building-blocks are undergoing a fundamental reordering, or, in Kuhn's phrase, a "paradigm shift."

That fundamental reordering of the governing ideas in tort law is what is properly meant by the phrase "the torts revolution."

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3. See, e.g., P. Huber, LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES 4-5 (1988). It is not my purpose in the present article to catalog various recent developments in tort law and assess whether they really amount to a "revolution." To the extent that I have expressed myself on this topic, my position is that the decline of the "fault" standard is less important than the move from a private law to a public law conception of the role of the tort system. See generally E. Elliott, TORTS WITH MULTIPLE CAUSES UNDER U.S. LAW (Yale Law School Civil Liability Program Working Paper No. 73 (1988)).

4. See, e.g., Prosser, The Assault Upon the Citadel (Strict Liability to the Consumer), 69 YALE L.J. 1099, 1099 (1960).


6. See, e.g., CORPORATE COLD FEET? THE SAFETY AND INNOVATION IMPACTS OF U.S. LIABILITY LAW (P. Huber & R. Litan eds., Brookings Institution, 1991) (hereinafter CORPORATE COLD FEET). For a superficially-plausible collection of anecdotes suggesting that liability has been significantly expanded by changes in tort law during the last few decades, see P. Huber, supra note 3. My experience suggests, however, that it is perilous and potentially misleading to draw conclusions about the pattern of results in the legal system as a whole from a few "leading cases" as opposed to systematic, empirical study. Schuck & Elliott, supra note 1, at 1007 (describing misleading conclusions about the stringency of judicial review during the 1970's drawn from "leading cases" which are belied by the actual pattern of results).


9. On the "torts revolution," see generally P. Huber, supra note 3; Schuck, The New Ideology of Tort Law, 92 THE PUB. INTEREST 93, 93-94 (Summer 1988); Priest, supra note
From a private law system for punishing wrongdoers and compensating persons who have been wrongfully injured, modern American tort law is rapidly becoming a public law system that purports to impose comprehensive regulation of safety and compensation for injuries through case-by-case litigation before judges and lay juries. It is really the shift in the prevailing styles of reasoning, the shared "modes of thought" that underlie how we conceptualize problems, that defines the "torts revolution." In this Article, I explore the significance of these changes in the governing ideas behind the contemporary theory of torts and the future evolution of tort law. My purpose is not so much to catalog the familiar story of where we have been doctrinally, but rather to follow through on where we will be going in tort law in the future if we follow some currently fashionable ideas through to their logical conclusion.

By taking current tort law theories seriously and tracing out their logical implications for the future, I do not mean to appear to be endorsing these developments, or arguing that we should carry them through to their logical conclusion. On the contrary, I have previously expressed my deep skepticism on theoretical grounds that the traditional institutions of tort law—case-by-case litigation by lawyers before judges and juries—are a technology of justice that is well-suited to the brave new purpose of creating a comprehensive system of safety regulation and/or compensation. Indeed, in my youth—that is, in 1985—I published an article in which I argued that there was a fundamental "mis-match" between the new goals of tort law and the nature of traditional tort institutions. However, American judges and lawyers appear to

7, at 461.


11. By using the term "evolution" I do not mean to imply that a deterministic process is at work. See generally Elliott, The Evolutionary Tradition in Jurisprudence, 85 COLUM. L. REV. 38, 54 (1985) (arguing that evolutionary models operating at the system level do not necessarily deny the power of free choice at the individual level). On the contrary, as discussed in the final section, infra notes 53-55 and accompanying text, it is quite unclear to me whether tort law institutions will be reshaped to the new substantive task, or alternatively, whether institutional considerations will cause us to pull back from the new substantive mission.

12. Elliott, Goal Analysis versus Institutional Analysis of Toxic Compensation Sys-
have ignored the doubts some of us in the academic community have been raising about the relentless, almost imperial, expansion of American tort law. That is hardly surprising. A powerful economic interest group (trial lawyers), as well as a powerful idea (economic deterrence), is fueling the tort law expansion. Therefore, whether or not one approves of the expedition, it may be useful to step back and to ask where the juggernaut is heading, at least so that we may ask whether this trip really makes sense. My goal, then, is three-fold: to define the governing ideas behind the "torts revolution," to analyze and to criticize them, and to spell out the long-term trajectory of tort law if we stick with these concepts.

In the next section, the governing ideas that currently undergird and justify the torts revolution will be identified. I contend that the beguilingly simple theory of using liability to create economic incentives for appropriate levels of safety increasingly defines the intellectual basis for the new tort law. I will argue on analytical grounds, however, that our present tort doctrines and institutions are not well-suited to provide the kinds of information and predictability that are necessary if potential injurers are to change their risk-creating behaviors, rather than just raise their prices and restrict activity levels. My thesis is that the vague, general information provided by the torts system makes it likely that, for example, playground injuries will be reduced in...
large part by inducing cities to close playgrounds, rather than by inducing playground equipment manufacturers to design safer products.\textsuperscript{14} Since this lecture was given, others are beginning to develop empirical evidence documenting that in at least some industries, the effect of recent changes in tort law parallels that which I predicted here on theoretical grounds.\textsuperscript{16}

In the third section, I sketch the kinds of changes in tort law doctrines and institutions that would be necessary if tort law is to be able to fulfill the brave new mission of efficient deterrence of risk-creating behavior that it has set for itself. If the incentive to avoid tort liability is to be effective in altering behavior, tort law must send clear messages to regulated parties concerning what actions they must take in order to avoid liability; in other words, tort law must find a way to re-invent clear, predictable defenses to liability.

Sufficient clarity and predictability in defining safe harbors from liability are unlikely to be achieved through case-by-case litigation under vague, highly-contextualized standards such as “act reasonably under all the circumstances.” Therefore, the type of defenses that would be sufficiently clear and predictable to have a significant effect in structuring the conduct of prospective injurers would probably have to take the form of codes of safe practice or design standards. These standards would be developed by other institutions and incorporated and enforced through the tort system.

In the final section, I speculate briefly on two separate but related issues: (1) should tort law follow the course of re-inventing the concept of defenses to facilitate efficient deterrence, and (2) will it?

II.

“In tort law,” my colleague Peter Schuck wrote recently,

\begin{itemize}
  \item[14.] It is true, of course, that tort law can produce a safer world by, for example, making it too expensive for cities to operate playgrounds, as well as by inducing manufacturers of playground equipment to design safer products. My point is that if the “torts revolution” is having any effect on safety at all, it is largely through the first phenomenon (increasing safety by restricting activity levels), while the “torts revolution” has been sold to the judiciary and the public on the understanding that it would have the second effect (leaving activity levels relatively constant, but inducing the development of safer ways to do what we want to do).
  \item[15.] See, e.g., \textit{Corporate Cold Feet}, \textit{supra} note 6.
\end{itemize}
"courts almost always have the last word, and that word has usually been compensate.\textsuperscript{16} There is no doubt that the judicial desire to compensate injured victims has been a powerful force in modern American tort law in recent years. Other writers even go so far as to suggest that recent doctrinal innovations in American tort law, which are without parallel in Canada and other Commonwealth countries, may be attributable to the judicial (mis)perception that America has a less well-developed social safety net than other countries.\textsuperscript{17}

While the desire of judges to use their power to compensate sympathetic victims is undoubtedly an important factor underlying recent developments in American tort law, it alone is unlikely to explain the dramatic changes that we have seen in tort law in the last generation. For one thing, it seems implausible that there has been a sudden increase in judicial empathy for injured persons in the last generation. A more interesting variant of this thesis, which may have some force but is unfortunately outside the scope of this lecture, holds that in recent decades the acceptance of a philosophy of "judicial activism" generally has freed tort judges to write their ideas of good policy into the law.\textsuperscript{18}

A more plausible explanation for the dramatic changes in tort law during the last generation is the one suggested by Peter Huber: economic theories of deterrence gave judges an intellectually acceptable excuse to do what they had probably wanted to do all

\textsuperscript{16} Schuck, \textit{supra} note 9, at 94.

\textsuperscript{17} In a provocative article, Canadian scholar Ernest Weinrib contrasts products liability law in the U.S. with its counterparts in other common law countries such as Canada and Australia. Weinrib suggests that, among other factors, "the survival of a more pristine conception of private law in Canada was perhaps facilitated by the sustained liberal and even social democratic influence on the political process and by a conservative tradition that encouraged the realization of the common good through state action." Weinrib, \textit{The Insurance Justification and Private Law, 14 J. Legal Stud.} 681, 685 (1985). See also Prichard, \textit{Why Is American Tort Law So Different?, in Causation and Financial Compensation for Claims of Personal Injury From Toxic Chemical Exposure} 359, 363 (L. Novey ed. 1986) ("different and more widespread social welfare systems in England and the Commonwealth . . . reduce the pressure on the tort system").

In fact, injury victims may not be as devoid of other sources of compensation as some judges may think. \textit{See The Angry Retort Against Tort Law, supra} note 5, at 14 (86.7% of Americans have some form of health insurance covering accident compensation); see also Priest, \textit{Modern Tort Law and Its Reform, 22 Val. U.L. Rev.} 1, 18-19 (1987) (discussing relatively small number of injured who remain uncompensated for health or disability losses).

\textsuperscript{18} \textit{See generally} R. Bork, \textit{The Tempting of America: The Political Seduction of the Law} 17 (1990).
along: compensate sympathetic victims. Thus, while the desire to compensate victims may provide the motive, a necessary contributing factor is a theory that legitimates and defines where tort law has recently been and where it is likely to go.

The governing idea that defines the new tort law is the theory of economic deterrence, which posits that costs should be “internalized” to create incentives for an efficient level of safety. The basic idea with regard to accidents, which was perhaps first stated explicitly and systematically in 1971, in Guido Calabresi’s *The Costs of Accidents*, is that a pattern of retrospective liability verdicts in individual tort cases creates incentives that may influence risk-creating behavior in the future. In other words, individual decisions to compensate victims *ex post* can be viewed as a regulatory system of incentives when viewed *ex ante*.

Two crucial shifts of perspective define the torts revolution: first, from individual case to systemic incentive, and second, from *ex post* to *ex ante* analysis of the effect of legal rules. These changes in the nature of the questions asked, not specifics of legal doctrine such as fault versus strict liability, underlie most of the path-breaking developments of the torts revolution. One finds them in *Escola v. Coca-Cola Bottling Co.*, *Boomer v. Atlantic Cement Co.*, *Beshada v. Johns-Manville Products Corp.*, and in one of my current favorites, the natural resource

   When I was in law school twenty years ago, we used to joke that the purpose of the first year torts class was to teach us why the widows and orphans could not always win. That lesson may be less frequent today.

20. Another way to formulate the concept is that there is a market for accidents and that the job of tort law is to establish efficient prices so that society will experience the “right” level of injuries.


22. See generally B. Ackerman, * supra* note 10, at 31.


25. 90 N.J. 191, 204, 447 A.2d 539, 546 (1982) (state-of-the-art not a defense to failure to warn). *Beshada* is a particularly unalloyed statement of the economic deterrence rationale of modern tort law. Significantly, it has not been followed in most other states, and its rationale has been narrowed by subsequent cases in New Jersey. See Feldman v. Lederle Laboratories, 97 N.J. 429, 452, 479 A.2d 374, 386 (1984) (limiting *Beshada* to duty to warn of what reasonably should have been known).
damage provisions of the Superfund statute. This statute gives the government the right to recover monetary damages for injury to natural resources caused by pollution, an experiment in cost internalization as a regulatory technique that has the potential to dwarf products liability in the magnitude of its use of tort liability for regulatory purposes.

To be sure, the idea that costs should be internalized to regulate safety is not the only idea in contemporary tort law. Rather, underlying contemporary tort law are compromises among multiple goals that sometimes weigh in different directions. Correlatively, deterring misconduct has always been a goal of tort law. These complexities do not, however, undermine the basic, long-term significance of the increasing importance of economic deterrence as the primary theory underlying modern tort law. The common law rarely changes by inventing something entirely new. Rather, the relative importance of competing legal ideas changes. That has clearly happened as the focus of contemporary tort law has gradually shifted to using liability to create incentives for safety.

However, as then-Professor (now Assistant Attorney General) Richard B. Stewart points out, the new tort law creates two qualitatively different sorts of incentives to reduce the risks of injury:

The first and more traditional is the incentive for enterprises to take cost-effective precautions to reduce the riskiness of their activities and thereby reduce or avoid liability. The second and more novel is the incentive for enterprises to reduce their level of risky activities—an extra incentive made possible because the recent expansion of strict liability has forced enterprises to pay for the harms they cause even though they have taken cost-ef-

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The goal of assuring that those who caused chemical harm bear the costs of that harm is addressed in the reported legislation by the imposition of liability. Strict liability, the foundation of [the bill], assures that those who benefit financially from a commercial activity internalize the health and environmental costs of that activity into the costs of doing business.


28. Cf. Stewart, Crisis in Tort Law? The Institutional Perspective, 54 U. Chi. L. Rev. 184, 187 (1987) (arguing that the development of enterprise liability in tort law reconceptualizes the traditional goals of deterrence and compensation and greatly attenuates the goal of condemning blameworthy conduct which had traditionally been paramount).
ffective precautions. It is assumed that enterprises will add liability costs to the price of the goods and services that they produce, and that the increased price will reduce consumer demand for those goods and services. The resulting reduction in the level of an enterprise's activity will reduce the number of injuries caused.  

III.

The concept of economic deterrence underlying modern tort law is an elegant and transformingly simple idea. However, as a number of critics have pointed out, including Rutgers's Howard Latin, there is remarkably little empirical evidence showing that in practice tort law actually has the effects on safety that supposedly provide the theoretical justification for much of what we are doing in tort law today. To be sure, the theory of economic deterrence in tort law is an application of general microeconomic theories, which themselves have modest empirical corroboration. But the general point that economic behavior responds to market incentives does not provide strong support for the new tort law. A bewildering array of potentially countervailing factors enter into risk-taking behavior. Depending on the relative magnitudes of these factors, tort law incentives might or might not have a relatively significant effect on behavior.

In their recent book summarizing and restating the economic justifications for tort law, William Landes and Richard Posner attempt to answer skeptics such as Latin. Landes and Posner begin by conceding that "there has been little systematic study of the deterrent effect of tort law." They then proceed to collect in two footnotes the studies that supposedly show empirically that tort law deters accidents. Their evidence consists primarily of an unpublished doctoral dissertation and a few published articles which show that, as the cost of auto insurance increases, some particularly risky drivers—for example, teenagers—are priced out

29. Id.  
32. Id. at 10 n.30, 11 n.34.  
of the market and drive less. Roughly similar findings emerge from the empirical studies of products liability and medical malpractice areas; there may be some modest level of additional care, but the predominant effect of increasing tort liability seems to be to increase prices and/or to restrict the level of activity or product.

Two major observations emerge from scrutinizing the empirical evidence concerning the effects of tort law on safety. First, the empirical support is surprisingly weak for the economic deterrence theory on which so much of the new tort law is predicated; it is hardly the stuff on which one would feel comfortable constructing a multi-billion dollar change in public policy in any other area. Currently, the theory that tort law has a significant effect in regulating risk-creating behavior in the intended way is just that: a theory. My own guess is that tort law probably does have some incentive effects, but they are nowhere near as simple and straightforward as they appear in the economic models. In any event, today we know very little about how the brave new world of tort law is actually shaping behavior.

The second point that emerges from the empirical studies is perhaps even more important than the first. To the extent that empirical studies do show tort liability affecting accident rates, the effect is largely accomplished through increasing prices and restricting activity levels, not by inducing individuals to perform activities in a safer manner. From an economic standpoint, in-


35. The conditions that facilitate taking additional precautions in response to tort law are discussed at infra notes 42-46 and accompanying text.


37. Huber & Litan, Liability, Safety and Innovation: An Overview, in CORPORATE COLD FEET, supra note 6, at 20 ("In sum, the documented direct linkages between liability and safety thus far are weak.").

Empirical work in other areas has demonstrated that legal incentives are less important than many lawyers had previously thought in shaping behavior. See Ellickson, Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County, 38 STAN. L. REV. 623 (1986); see also Rose, The Comedy of the Commons: Custom, Commerce, and Inherently Public Property, 53 U. Chi. L. REV. 711 (1986).

38. See, e.g., Huber & Litan, supra note 37, at 16 ("[S]everal of our authors agree that incentives created by liability system are considerably amplified by the publicity that liability can create.").
centives can deter accidents in at least three different ways: people generally may drive less, particularly risky drivers may drive less, or the same people may drive in the same amounts but more safely.

While the empirical evidence is still too fragmentary to permit a conclusive demonstration, I believe that one of the major effects of increased tort liability on safety is to increase prices and reduce activity levels, rather than to induce people to perform activities more safely. This thesis may help to explain the empirical evidence that is beginning to accumulate concerning the actual effects of tort law. 39

IV.

The reasons for these effects described above can be illustrated by a conversation I had a few years ago with the general counsel for a major chemical company. I asked him what message his company was getting from the increasing tide of plaintiffs' verdicts in toxic tort cases. "Get out of the chemical business," he answered somewhat sarcastically. At the time, I laughed nervously, thinking that he was making a bad joke, but his remark has continued to echo in my mind. His comment contained an important kernel of truth. His insight goes to the core of some of the difficulties with using the current torts system as a system for comprehensively regulating safety.

In order to make the crucial shift from an ex post liability system to an ex ante regulatory system, the theory of economic deterrence in tort law depends on the premise that liability that may ensue from engaging in certain activities is predictable in advance. But the advocates of economic deterrence generally fail to make a crucial distinction between two different types of predictability. In a recent article, I proposed a basic distinction between what I call general (or activity) predictability and specific (or act) predictability. 40 By "general or activity predictability," I mean the ability to foresee the incidence of some future consequence as a result of engaging in a class of activity. "Specific or act predictability" refers to the ability to predict which of the specific actions within the class are likely to give rise to the con-

39. See Corporate Cold Feet, supra note 6.
sequence. An example of general predictability would be the increased risk of death as a result of taking a trip on a commercial airline. We know that there is a statistical risk of death associated with the trip, but as we get on the plane, we are unable to predict which particular trip on which particular airplane is likely to result in our death. We can predict the class of activity which results in an increased risk of harm, but we can say little, if anything, about what specific sub-actions within the class increase or decrease the risk.

Most of the thinking to date about deterrence in tort law has ignored the distinction between general or activity predictability and specific or act predictability. The importance of this distinction for the law of torts lies in the type of response that will result when someone has information regarding general but not specific predictability. A person who knows that engaging in a class of activity will increase the risk of an adverse consequence may choose to increase prices or restrict participation in the activity, but how one conducts the activity is unlikely to be affected unless information is available bearing on specific predictability.

What my friend in the chemical business was saying was that the torts system gives his company fairly good information about "general or activity predictability," but very little information about "specific or act predictability." As a result, prospective injurers lack the information they need to make intelligent decisions at the margin about how to substitute increased precautions for incurring liability and passing the costs on to their customers. Because prospective injurers are uncertain whether actions that they may take will reduce their future liabilities, they will tend to increase their prices and pay liability awards, or restrict their participation in liability-prone activities, more than they should. If tort law is not very effective at conveying information about specific predictability, that is, which changes in acts, as opposed to changes in activity levels, will alter liability, consumers and victims will end up worse off. They will suffer more injuries than they should, and prices will be higher than they should be. Precautions that consumers would be willing to pay for will not be taken; in fact, the only ones who will end up better off from uncertainty about liability are lawyers, who will receive a larger share of social spending than they should.

Another way to formulate the same problem is by pointing out that monetary damages awarded in tort law are not equally ac-
ceptable substitutes for injuries. No one really believes that twenty thousand, or two hundred fifty thousand, or even one million dollars is a truly adequate substitute for the loss of an arm, or what a parent feels watching the slow, agonizing death of a child from leukemia. This is the clear social message that emerges from cases like Grimshaw v. Ford Motor Co., the famous Ford Pinto gas tank design case in which the jury, and the country, were morally outraged that an automobile company was allegedly trading off design changes against the expected value of liability verdicts.

When we view tort law in the old ways, as a punishment or compensation system, money damages are understandable. Money damages are simply the best we can do to try to compensate the victim for a loss and to punish wrongdoers. But when tort law is viewed as a deterrent or regulatory system, the practice of awarding money damages to deter future injuries takes on a more sinister dimension. Tort law leaves the prospective injurer, usually a corporation, free to decide that someone else will suffer a preventable injury, as long as the corporation is willing to pay tort damages as compensation and to pass a portion of the costs along to its customers. On one level, this illustrates why it is so important that tort law effectively supply information about specific or act predictability, as well as general or activity predictability. If tort law as an information system is biased, so that prospective injurers are uncertain about what change in their actions will reduce their liability, they will systematically make the decision to allow more accidents to happen, to pay compensation, and to pass the costs along to their customers. On the other hand, the very problem at issue in Grimshaw, our uneasiness at putting a price tag on life and limb, causes us to want to maintain uncertainty.

To illustrate the point, adopt an ex ante perspective on tort

42. M. FRANKLIN & R. RABIN, CASES AND MATERIALS ON TORT LAW AND ALTERNATIVES 14 (4th ed. 1987) (suggesting that money damages in torts cases are “the best solution” for compensating victims for lack of anything better).
43. Elsewhere I have questioned the use of money damages to deter unsafe practices, by pointing out that they may encourage “unsafety” by putting an economic price on injuries. Elliott, supra note 40, at 1070-72. See also Abel, Torts, in THE POLITICS OF LAW: A PROGRESSIVE CRITIQUE 185, 190 (D. Kairys ed. 1982).
law yourself. If you were going to counsel a chemical business on how to change its practices to reduce tort liability, what advice would you give? Tort law itself provides little, if any, useful information to guide the prospective injurer toward conduct that may improve safety.46

The problematic nature of tort law as an information system can be illustrated by considering one of the most famous (and frequently cited) of all torts cases, The T.J. Hooper v. Northern Barge Corp.46 In that case, two sea-going barges sank in a storm while en route from Norfolk to New York City. The theory of liability was that if the tugs towing the barges had only been equipped with radios, they would have heard the news of the approaching storm, and could have pulled into the Delaware breakwater, thereby avoiding the loss. On appeal, Judge Learned Hand rejected the defense that at the time of the accident it was not customary for tugboats to carry radios with the observation that "reasonable prudence is in fact common prudence; but strictly it is never its measure; a whole calling may have unduly lagged in the adoption of new and available devices."47

The economic deterrence theory of tort law presumably posits that owners of future tugboats throughout the country will somehow hear about the result in The T.J. Hooper, and be moved to install radios in their boats. To state the thesis that way is to show how unlikely it is. Alternatively, perhaps the economic theory of tort law may work more indirectly. Owners of tugboats will not actually hear about the specifics of every case involving a tugboat, but they will get a more general message: you can be held liable in court if you don't take every reasonable precaution against loss. Then the owners will be able to translate this general message into specific precautions for themselves. Or perhaps third parties such as insurance companies will mediate between the liability system and tugboat owners by offering lower premiums for tugboats with radios than for tugboats without radios.

Again, these scenarios are possible, but certainly not inevitable. Looking at the system of tort liability from the ex ante perspective as a series of regulatory commands illustrates the major insti-

45. One study of automotive design engineers concluded that "many design engineers in industry believe that the [tort] system offers them limited information about how to improve the safety of their product." Huber & Litan, supra note 37, at 20.
46. 60 F.2d 737 (2d Cir. 1932).
47. Id. at 740.
tutional difficulty now facing tort law: tort law principles and institutions have evolved as a vague, moralistic system of principles for assigning liability retrospectively. The system has not been constructed to convey useful information to prospective injurers about how to conduct themselves in the future. As tort law gradually shifts from an *ex post* system for assigning blame to an *ex ante* system for regulating safety, tort law doctrines and institutions must be gradually reshaped to better effectuate these new functions.

V.

Viewing current tort law as a regulatory system, its key deficiency is the almost total absence of reliable, credible *defenses* to liability. Currently, parties regulated by tort law are told little more than to act "reasonably under all the circumstances." Such vague, contextual formulations made sense when the primary purpose of tort law was to enforce the community's sense of moral outrage against wrongdoers. As tort law adapts itself to new functions, however, the traditional formulations become increasingly nonfunctional.

The purpose of a regulatory system is to convey information about a structure of incentives so as to alter the behavior of regulated parties.48 Information is the opposite of randomness; it is the order that comes from excluding certain random possibilities. A legal liability system conveys information by stating the conditions under which one will *not* be held liable. If a member of the regulated community perceives the chance that he will be held liable as essentially random, or unrelated to his actions, he has no incentive to change his behavior to reduce liability.

Paradoxically, clear defenses against liability are what tort law needs now to induce the production of safer products and practices. For tort law to be a more effective system for regulating conduct, rather than merely a system for providing compensation after the fact, it must develop a renewed sense of the importance of clearly defining "safe harbors," which are actions that a regulated party may take in order to eliminate or reduce his liability. Thus, "re-inventing defenses" and "enforcing standards" are opposite sides of the same coin. To be effective in inducing regulated parties to follow a standard of conduct, tort law must prom-

ise that if they do abide by the specified standard, their liability will be eliminated or at least curtailed sharply.

This point can be brought into sharper focus by comparing the nature of tort law rules with those in other areas. Criminal law is an area in which courts have substantial experience devising rules of law intended to alter the behavior of various parties through deterrent sanctions. When the courts devised principles of law intended to deter the police from abusing suspects during custodial interrogation, they did not rely on vague concepts such as that interrogation had to be "reasonable in light of all the circumstances." Indeed, that was the test under *Brady v. Betts*, and it proved to be ineffective. Rather, in *Miranda v. Arizona*, the court promulgated a clear, prophylactic code of "do's" and "don'ts," implicitly promising the police that if they gave the prescribed warnings, subsequent statements would be admissible. This is also the approach that we generally take in tax law. When we wish to motivate regulated parties to undertake certain investments through the Internal Revenue Code, we define clear, "safe harbor" rules that ensure favorable tax treatment to those who comply. In the absence of a clear, enforceable bargain, far fewer investors would alter their investment decisions in the hopes of achieving tax benefits. Imagine how much less effective tax provisions would be at re-directing capital flow if they had the vague texture typical of the rules of tort law: "Investments in low income housing shall be deductible if they are deemed reasonable and in the public interest by the IRS under all the circumstances." Indeed, when we want parties to stay away from an area, we write vague rules such as these. In criminal law, we sometimes intentionally leave the lines vague in order to achieve an *in terrorem* effect.

My position is not the stone-dumb "no one ever alters his behavior in response to tort law incentives." On the contrary, just as some investors would still invest in low income housing in the hopes of achieving favorable tax treatment under a vague rule, some potential injurers undoubtedly do invest in additional precautions in the hope of reducing liability, even though the efficacy of introducing new technology is speculative at best under

49. 316 U.S. 455 (1942).
50. 384 U.S. 436 (1966). By citing this case, I do not mean to endorse the constitutional wisdom of sanctioning police misconduct by releasing criminals. My point goes to the form of legal rules intended to deter, not to whether *Miranda* is sound constitutional law.
existing tort law. My claim is not that tort law has no effect on behavior; rather, it is that current tort law rules do not come close to achieving the optimal effect on behavior that would be possible if the rules had a different form.

We may think of legal doctrines and institutions as alternative technologies of justice. Just as other technologies may be relatively effective or ineffective at converting inputs into outputs, so too some technologies of justice are much more effective than others at achieving the desired changes in behavior of regulated parties than others. The "effectiveness" of a technology of justice may be defined in terms of how much regulated behavior it is able to re-deploy for a given level of economic effect. If the law in an area is moving around large amounts of money, but in a relatively haphazard way, this sends a confusing signal as an incentive to regulated parties. As a technology of justice, the law in this area will be relatively ineffective at motivating parties to change their behavior. It will not be totally ineffective as an incentive, since some of the message will still get through despite the high level of noise in the system, but the law in this area will not achieve as much "leverage" in changing behavior as would have been possible from that level of effect on the economy.

My contention is that present-day tort law is just such a "noisy" system for regulating conduct. Current tort law rules are vague and their application difficult to predict for two reasons: first, it is in the narrow self-interest of lawyers to maintain a system which is not self-executing, but requires the aid of thousands of highly paid professionals to implement; and second, when we conceived of the purpose of tort law as punishing moral wrongdoing, it seemed functional to leave the rules vague at the margins in order to obtain the in terrorem effect of giving prohibited conduct "a wide berth." However, as economic deterrence of unsafe practices becomes an increasingly dominant purpose of tort law, clear, predictable rules to promote changes in conduct by prospective injurers will become increasingly valuable and useful, and perhaps even necessary.

51. See Elliott, supra note 40, at 1053-57.
52. Since delivering this lecture, I have become aware of a related thesis proposed by Professor Thomas Merrill that in high transaction cost situations the common law often responds with discretionary or "judgmental" doctrines as opposed to the all-or-nothing "mechanical" doctrines which he finds typical of lower transaction cost situations. Merrill, Trespass, Nuisance and the Costs of Determining Property Rights, 14 J. LEGAL STUD. 13,
Developing rules of substantive law containing reliable guarantees of non-liability within the body of current tort doctrines is a formidable task. Much of the difficulty arises from the institutional and procedural framework in which substantive tort law is currently embedded. Because of the extremely high cost of case-by-case litigation, to be effective as a practical matter, a guarantee of reduced liability must be embodied in a procedural form that is capable of being exercised without the necessity and expense of a jury trial. For tort law to convey information that is effective in shaping the conduct of regulated parties, there must be threshold defenses against liability that provide reliable guarantees against being sued. In essence, these re-conceptualized tort defenses must take the form of clear standards of conduct that will protect against tort liability, or at least, reduce the magnitude of financial exposure.

It seems unlikely that the traditional process of fact-intensive, case-by-case litigation before lay judges and juries will be able to produce the clear, reliable standards that are necessary. Thus, if tort law is to be an effective system for deterring unsafe practices in the future, as opposed to merely decreasing activity levels, tort law will have to turn increasingly outside of itself and incorporate by reference standards of conduct developed elsewhere which can serve as both standards of, and defenses against, liability.

Lest I be misunderstood, I do not mean simply that compliance with standards set through the traditional process of administrative regulation should be recognized as defenses to private tort actions (although I do not oppose that result in appropriate cases). Rather, I envision that eventually codes of conduct or safe practices could be developed which are intended from their inception to be enforced primarily through a system of privately-initiated liability actions. For this reason alone, such codes would be substantially different in form from current administrative regu-
lations, which are designed with centralized enforcement in mind. There would be substantial dangers in developing codes of industrial conduct enforced by civil liability law. For one thing, if such codes are not formulated carefully, they may stifle innovation by removing dynamic incentives for technological improvements.

This problem, while substantial, could perhaps be ameliorated in concept by hybrid systems that leave in place some incentives for improved technology. For example, perhaps if an injurer complies with accepted tort law standards of conduct and design, recovery should be limited to the victim's actual net "out-of-pocket" loss. The collateral source rule should be relaxed, so that the victim's insurance recovery is taken into account to reduce tort damages, and intangible damages such as pain-and-suffering and punitive damages should be eliminated. Limited recovery would be allowed to retain an incentive for technological improvements.

VI.

One of the most effective ways to criticize current tort law theories may be to show where they tend to lead. The kinds of changes in tort law doctrines and institutions that would ultimately be needed to effectuate fully the brave, new mission that tort law has declared for itself would fundamentally alter the institution. I hesitate to call these changes "reforms," for fear of appearing to advocate them; they certainly would re-form tort law in a literal sense, however.

From a theoretical standpoint, it is difficult to say whether the procedural conventions of tort law should be modified to fit the new substantive aims of the field, or alternatively, whether the expanding orientation of tort law toward deterrence should be restricted by the limitations of traditional tort law institutions and procedures. In other words, the ultimate question is, "Does substance occur in the interstices of procedure, or vice versa?"55

The answer, I suppose, is at one and the same time, "neither" and "both of the above." Our law abhors absolutes. In the abstract, it is relatively easy to define the optimal shape that tort

law should assume to facilitate economic deterrence, at least for any given time and state of technology. At the opposite extreme, if one holds tort law institutions constant, it is relatively easy to criticize the new substantive role of economic deterrence in tort law as less than ideally adapted to existing institutions.

But the law, and particularly judge-made common law, rarely grows by inventing new concepts or institutions that are ideally tailored to their mission in the abstract. Rather, what is currently occurring in tort law is much more typical of the way that our law grows, as existing institutions are adapted to new functions and modified along the way. This results in a law that is never neat or ideally suited to its current goals, but is always in the process of becoming something different through the creative tension between procedure and substance, past and present. Neither is totally dominant nor without its influence on the other. Just as the river shapes the canyon and the canyon shapes the river, so too tort law goals should be influenced by the limitations of current institutions, but institutions will also change under the pressure of new goals.

Current tort law is a way station in a centuries-old journey. The presently-ascending goal of economic deterrence is unlikely to be achieved in a simple, pure form. Along the way, the increasing acceptance and elevation of this goal in tort law is likely to be a powerful force re-shaping tort law and its institutions in ways that will not be fully foreseen for decades to come.

The next stage is likely to be a tendency toward clearer, more predictable rules of liability, re-inventing defenses, and enforcing standards.

56. The caveat “at any given time” is an important one. Dynamic incentives over time to develop innovations present quite different issues. As discussed in the text, what makes this problem so interesting and difficult is that the system creating the incentives is not itself fixed, but dynamic.

57. Balkin, supra note 13, at 1487 (describing in the law the process that anthropologist Levi-Strauss calls “briccolage,” the process of adapting existing cultural artifacts to new functions).