I. INTRODUCTION

Though at times a source of controversy, the American Law Institute performs an enormous public service through its Restatement projects. One of the initial hurdles any such project confronts is whether it should aim to clarify and illuminate the law, or to push the law in a certain direction. I think the Restatement project is most productive when it aims to clarify and illuminate rather than guide or control the development of legal doctrine. Efforts to guide and control risk producing questionable interpretations of the
law, undermining the value of the Restatement in the long run. Fortunately, the Restatement of Torts comes across largely as an effort to clarify and illuminate.¹

I will argue below that this clarification function can be improved by adopting, developing, and integrating a positive theoretical framework. A positive theory of tort doctrine can reveal connections between rules that initially seem initially to be unrelated, suggest functions for rules that seem difficult to justify on doctrinal grounds, help the researcher predict the eventual tort rules adopted by courts in novel areas of the law, and give us greater confidence in our interpretations of the case law. I hope to demonstrate that a detailed positive framework can improve the Restatement and similar efforts to clarify tort doctrine, and should be a central part of the Restatement project.

In order to be useful to the Restatement project, a positive theory of tort law has to have detailed implications for tort doctrine. The lack of detailed implications and general failure to come to grips with important features of tort doctrine have been substantial shortcomings in the dominant positive framework, that of Holmes and Posner. I extend the dominant framework below to enable it to justify various intentional tort doctrines, and the specific form and allocation of strict liability rules within tort law. After developing the positive framework, I apply it to the Restatement (Third) of Torts.² The framework explains many of the detailed provisions and commentary of the Restatement, and identifies one area in which the Restatement (Third) seems inconsistent with tort doctrine. In the penultimate section I return to the value of positive theory as a part of the Restatement project.

II. THE NEED FOR A POSITIVE THEORY OF TORT DOCTRINE

It may seem a little odd to argue for the development of a positive theory of tort doctrine after so much work in this vein has been published. But the two most successful efforts to explain tort

1. This is especially true in the hands of its highly regarded current Reporter Professor Gary Schwartz.
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law, that of Holmes more than 100 years ago, and more recently Posner, are incomplete in important respects. Overall, I regard the Holmes-Posner framework as a success, and like many scholars continue to work largely within it. However, there are shortcomings in the framework that limit its usefulness as a template for the detailed analysis of tort doctrine required by a project such as the Restatement.

Holmes provided the first positive economic theory of tort law, anticipating the core as well as many important components of Posner's account. Posner, in his seminal paper A Theory of Negligence, asserted that "Holmes left unclear what he conceived the dominant purpose of the fault system to be, if it was not to compensate." This is nonsense. While Holmes did not have the advantage of a century's worth of economic theory and associated technical terminology to draw on, his consistent reliance on cost-benefit arguments clearly indicates that he thought tort doctrine aimed to minimize the costs of accidents and accident avoidance. Holmes claimed that tort doctrine generally accords with "convenience," which is about as close as one could come in the late 1800s to saying "cost-minimization" or "economic efficiency," especially when addressing an audience comprised entirely of lawyers.

The core of Holmes' framework, as well as Posner's, is the Hand formula for negligence. Under the Hand formula, an actor is negligent, and therefore liable, if on the margin the cost of avoiding the accident is less than the cost of the accident. Again, the fact that Holmes did not use precisely this terminology is irrelevant, because his arguments are so clearly consistent with this approach. It is the habit of academics during a period of "normal science," when the stakes are high precisely because there is so little original on the table, to make much of minor distinctions in terminology in order to allocate credit. Put this habit aside for the moment and imagine Holmes writing for a population of lawyers trained as they are today, with a highly developed economics literature to consult.

Because Holmes believed that the Hand formula explained so much of tort doctrine, he found little need for a concept such as

3. I will refer to the chapters on tort law in Oliver Wendell Holmes, Jr., The Common Law 77-163 (1881).

4. I am referring to Richard Posner's many articles on the positive economic theory of tort law, many of them co-authored with William Landes. The first article, and the one I will discuss in this paper, is Richard A. Posner, A Theory of Negligence, 1 J. Legal Stud. 29 (1972).

5. Id. at 31.

6. Holmes, supra note 3, at 1-2 ("The substance of the law at any given time pretty nearly corresponds, so far as it goes, with what is then understood to be convenient . . .").
duty. Indeed, Holmes makes no effort in *The Common Law* to explain the various duty doctrines, even though they probably were more important in his day than in ours. Similarly, Holmes makes little effort, beyond references to "policy coupled with tradition," to explain the function of strict liability. His brief references to strict liability suggest that he believed the cost-internalization rationale commonly advanced today was the purpose of strict liability, but Holmes made no effort to get into the details of strict liability doctrines, such as nuisance law.

Posner, like Holmes, treats the Hand formula as the core of tort doctrine, and similarly seems to have little use for the notion of duty. However, the most significant shortcoming in Posner's framework appears in his treatment of strict liability. Examine his words from "A Theory of Negligence":

It is true that if you move from a regime where (say) railroads are strictly liable for injuries inflicted in crossing accidents to one where they are liable only if negligent, the costs to the railroads of crossing accidents will be lower, and the output of railroad services probably greater as a consequence. But it does not follow that any subsidy is involved—unless it is proper usage to say that an industry is being subsidized whenever a tax levied upon it is reduced or removed. As we shall see, a negligence standard of liability, properly administered, is broadly consistent with an optimum investment in accident prevention by the enterprises subject to the standard.

Posner is suggesting in this quote, as he has said at other times, that in the general context in which the negligence rule applies, imposing strict liability is equivalent to taxing the tortfeasor. The reason is that the negligence standard is sufficient to induce the actor to take cost-justified precautions. If the actor is strictly liable, rather than liable only if negligent, he will not go beyond the *reasonable* level of precaution that he would choose under the negligence rule, which is the level that minimizes the sum of accident and accident-avoidance costs. Put another way, the actor will not spend $2 to avoid an expected liability of $1.

But a solid line of economic theory starting from Pigou and receiving its most sophisticated applied treatment to the law by

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7. Discussion Draft, supra note 2, § 6 Reporter's Note (citing Oliver W. Holmes, Jr., *The Theory of Torts*, 7 Am. L. Rev. 652, 660 (1873) (endorsing a general duty of "all the world to all the world").
Calabresi\textsuperscript{12} indicates that Posner's tax-subsidy argument is probably wrong. A railroad that exercises the reasonable level of precaution still lets off sparks that damage the crops of farmers. These sparks are "external costs" or "externalities" associated with the activity of running railroad cars. Under the theory of externalities, optimum investment in the activity of running railroads is achieved only if these external costs are internalized to the railroad owners. Thus, as a general matter, strict liability is not an imposition that serves no other purpose than to tax the railroad, even in settings in which the courts adhere to the negligence rule. While the negligence rule ensures optimum investment in accident reduction, strict liability ensures both optimum investment in accident reduction and activity levels.

We have a serious problem here. Under the positive framework that Posner has extended and developed, the general shape of tort doctrine, with negligence serving as the default rule and strict liability as the exception, appears wrongheaded. Economic theory seems as a general matter to suggest that we should see strict liability as the general rule with negligence appearing as the exception in certain instances. Indeed, this basic insight motivated Calabresi's impressive critique of the fault system. Calabresi, working with the same advantages in scientific capital as Posner, saw that the default rule suggested by the economic literature was strict liability rather than negligence. Why the default rule should be negligence remains unexplained under Posner's framework. This is especially troubling for Posner's analysis because he, like Holmes, treats the Hand formula as the theoretical core of tort doctrine.

The Posnerian extension of Holmes' framework runs into difficulties when confronting the doctrinal details of strict liability. In \textit{Indiana Harbor Belt Railroad Co. v. American Cyanamid Co.}, Posner focused on one of six factors in the \textit{Restatement (Second) Section 520} test governing ultrahazardous activities: the inability to eliminate the risk of accident by the exercise of due care (factor (c)).\textsuperscript{13} Elaborating, Posner said that

\begin{quote}
[s]ometimes, . . . a particular type of accident cannot be prevented by taking care but can be avoided, or its consequences minimized, by shifting the activity in
\end{quote}


which the accident occurs to another locale, where the risk or harm of an accident will be less . . . or by reducing the scale of the activity.\textsuperscript{14}

Now, the problem with focusing on this element of \textit{Restatement (Second) Section 520} is that this is always true of every accident setting. We can never eliminate the risk of an accident, and we can always avoid and minimize consequences by shifting and reducing the activity. Posner's tendency to focus on the Hand formula leads him to find only one reason to divert from the negligence standard, and that is the case in which due care is insufficient to eliminate accidents. But that is a troubling standard for strict liability because it is true in all cases. So we are still left searching for a reason to apply strict liability in one case rather than another.

I do not mean to argue that factor (c) of \textit{Restatement (Second) Section 520} is useless. However, I do think that Section 520 has to be regarded as a whole piece rather than reduced to one of its components. Moreover, of the components in Section 520, I find factor (c) far from decisive in determining the appropriateness of strict liability, and not very helpful standing alone. I will return to this below.

A positive framework for tort doctrine should be able to explain tort doctrine at a rather detailed level. The best positive framework available, that of Holmes as extended by Posner, has several shortcomings. It has not been applied extensively or with much success in explaining various duty doctrines in tort law. Nor has it been applied to such "specific intent" torts as assault and malicious prosecution. And it seems to do a poor job of explaining the allocation of strict liability rules, and especially doctrine in the closely related areas of nuisance and ultrahazardous activities. I will set out an alternative that succeeds on these issues below.

\section*{III. Extending the Positive Framework for Tort Doctrine}

A richer positive theoretical framework begins with three observations, most of them anticipated in part either in Holmes' or in Posner's analysis. First, as Holmes stressed in several instances,\textsuperscript{15} tort law rules reflect statistical generalities, as one should expect of default rules in general. Tort doctrine assumes individuals are aware of basic physical laws, so that a driver who fails to brake in

\begin{thebibliography}{15}
\bibitem{14} \textit{Id.} at 1177.
\bibitem{15} \textit{See, e.g., HOLMES, supra note 3, at 155.}
\end{thebibliography}
time is assumed to have foreseen the likelihood of an accident. Owners of tigers and bears are assumed to have foreseen the dangers they impose on others. A homeowner has the right to assume that an individual who breaks into his house at night is there for a bad purpose, and so on. Liability rules governing conduct, such as negligence or strict liability, are typically based on statistical generalities concerning cause and effect.

Second, externalities are prevalent; they represent the norm rather than the exception. I am referring both to negative externalities, costs imposed on others outside of an exchange setting, and to positive externalities, or benefits conferred on others in the absence of an exchange mediated through prices. Holmes signaled the importance of benefit externalization for understanding tort doctrine when he noted that

[a] man need not, it is true, do this or that act—the term act implies a choice—but he must act somehow. Furthermore, the public generally profits by individual activity. As action cannot be avoided, and tends to the public good, there is obviously no policy in throwing the hazard of what is at once desirable and inevitable upon the actor. 16

Third, liability rules affect activity level and care level decisions—a version of the standard distinction in economics between substitution effects and scale effects. As Posner has made clear in his discussions of the choice between strict liability and negligence, strict liability gives actors incentives to shift the location or reduce the scale of their activities. The negligence rule does not have this effect because the actor is relieved of liability after taking reasonable precaution under the negligence rule. Because of the different effect of strict liability, we should expect strict liability to be applied in tort law when a reduction in the actor's activity level is desirable. Contrary to Posner's assumption in Indiana Harbor, the Hand formula does not tell us when this is the case.

One additional observation is that doctrinal rules achieve at best a roughly optimal state. The tools provided by legal doctrine are blunt. We should not expect them to bring about a "first-best" outcome in which every actor has hit the optimal investment level on every margin. For this reason the mathematical models currently employed in much of the law and economics literature are often of only marginal relevance to tort doctrine, at least once we hit a sufficient level of detail. The question of relevance is whether the rule components (strict liability, negligence, intent, and so on) provided in the doctrine have been put together in a way that

16. Id. at 95.
minimizes the sum of accident and accident-avoidance costs relative to some alternative configuration of the rule components. In general (and as I will argue below), this appears to be true. And as a general rule, mathematical models may be helpful but are by no means necessary in evaluating this question.

A. The Economics and Law of Activity Levels

With the foregoing as background, I will set out a modified positive framework for tort doctrine, building on one I have referred to before as the "missing markets" model. For simplicity, let us consider the choice between negligence and strict liability. If, assuming reasonable care, the externalized benefits are roughly equal to the externalized costs connected with an activity, the negligence rule should apply. The reason is that there is no economic case for reducing the level of the activity in this setting. Since the external benefits are roughly equal to the external costs, there is no net external (i.e., third party) harm on average associated with the actor's activity when conducted reasonably. This is the context that includes most services provided in the market. For example, a bus running down the street on which your business is located externalizes risk to you, to the extent the bus may veer off the road and damage your store. On the other hand, the bus service also externalizes a benefit by bringing potential customers in contact with your business. Alternatively, consider the risk externalization among cars on a street. Each car, driven reasonably, externalizes roughly the same risk to other cars. Under a negligence rule, there is no net external harm imposed on a given actor when every actor drives reasonably.

We can elaborate this argument by distinguishing private and social benefits. Actors will pursue an activity up to the point where the incremental private gain or benefit from the activity is just equal to the incremental private cost. For example, a railroad will run its trains until the marginal revenue from service is equal to the marginal cost, for if the marginal revenue exceeds marginal cost it will gain by increasing service. Society, on the other hand, has an interest in seeing an activity expanded up to the point where the marginal benefit to society (marginal social benefit) is just equal to the marginal cost to society (marginal social cost). Suppose

the marginal revenue and marginal cost to the railroad are $10 per passenger-mile (or freight-mile) at the firm's privately optimal level of service. Suppose that the external harm to farmers is $10 (per passenger-mile), and the external benefit to farmers is $10. Since the marginal social benefit is $20 and the marginal social cost is $20, there is no economic argument for reducing the scale of the railroad's activity.

If, when railroads are operated with reasonable care, the externalized costs are substantially greater than externalized benefits, then a strict liability rule is appropriate against the actor responsible for the costs. Suppose the external cost to farmers from the railroad is $110 per passenger-mile and the external benefit to them is $10 per passenger-mile. At the railroad's preferred level of service, the marginal social cost of rail service is $120 (the sum of $110 external and $10 private), while the marginal social benefit is only $20. Every additional mile of service reduces society's wealth by at least $100. In this case, reducing the scale of rail service enhances society's wealth. By internalizing the $110 to the railroad, a strict liability rule would induce the railroad to choose a lower level of service where marginal revenue is commensurately high. The new privately optimal level of service for the railroad may be one where the railroad's marginal cost is $112 and the railroad's marginal revenue is also $112.18 See Figure 1.

18. Alternatively, if railroad cost curves are downward-sloping, the new privately optimal service level may be more costly at the margin. For example, the new privately optimal service level may be one where the marginal social cost is $130 and the marginal revenue is also $130. For the purpose of this discussion it does not matter whether the railroad's cost curves are upward or downward-sloping. The important point is that when external costs are "internalized," which is what we observe under strict liability, the railroad's service level declines.
The railroad's preferred activity level under strict liability, point B in Figure 1, is not the same as society's best service level, which is point C. However, the railroad's preferred service level under strict liability is better, from society's perspective, than its preferred service level under negligence (point A). This serves to illustrate the point that liability rules do not necessarily achieve the optimal outcome, as defined within economic models. The optimal outcome would equate the marginal social cost of service with its marginal social benefit. But this is beyond the power of liability rules in many instances. The relevant question is whether strict liability comes closer to bringing about socially optimal activity levels than does negligence.

From the foregoing it should be clear that strict liability is socially preferable to negligence whenever the external costs are substantially larger than external benefits. When the ratio of external costs to external benefits is roughly one, the negligence rule is preferable to strict liability. When the ratio is substantially greater than one, strict liability is preferable to negligence. When the ratio is substantially less than one, courts should choose liabil-
ity rules that serve in effect to subsidize the underlying activity, by reducing the actor's expected liability below what he would bear under the negligence rule. I will argue below that tort doctrine is consistent with these general principles, and that they help us understand many of the details of the intentional tort and of strict liability doctrines.

B. Some Immediate Applications

To begin, we hardly ever observe any tort rules that really can be described as strict liability, in the sense that the potential defendant acts at his peril. Perhaps the closest version of such a rule is observed in products liability doctrine, in the case of manufacturing defects. The Restatement (Second) Section 402A holds the manufacturer liable for manufacturing defects without regard to his level of care or his activity level.\footnote{19. \textit{RESTATEMENT (SECOND) OF TORTS} § 402 cmt. a (1965).} However, outside of this rather special case, I am aware of no others of such pure strict liability. Instead, we observe rules that do not inquire into the fault of the defendant, but do inquire into several other issues. For example, consider \textit{Restatement (Second) Section 520}, governing ultrahazardous activities.\footnote{20. \textit{See infra} Part IV.D.} Although Posner focused on only one of those factors in \textit{Indiana Harbor}, there are six factors altogether in Section 520.\footnote{21. \textit{RESTATEMENT (SECOND) OF TORTS} § 520 (1977).} Similarly, nuisance doctrine examines a broad range of issues outside of the defendant's fault. What explains the structure of the strict liability doctrines we observe in tort law?

The strict liability doctrines we observe in tort law aim to guide courts in assessing whether the ratio of externalized costs to externalized benefits is substantially greater than one. This explains why we see rather complicated rules for the most part under areas of law bearing the label "strict liability," and why the simple "pure strict liability" rule governing manufacturing defects is a unique and special case. This also explains why Posner's reduction, in \textit{Indiana Harbor}, of \textit{Restatement (Second) Section 520} to a single factor—whether the danger can be eliminated with reasonable care—is probably unwise and almost certainly inconsistent with tort doctrine. The Hand formula approach advanced by Posner is insufficient to explain the structure of strict liability rules.

We can think of tort law as consisting of rules with three liability-allocating functions. First, there is the Hand formula, which,
as Holmes and Posner have stressed, is properly viewed as the general default rule for tort liability. Second, there are *channeling rules* that allocated more or less liability than required by the Hand rule. Strict liability doctrine can be put in this category, and so can rules governing duty and proximate cause. These rules, as noted earlier, are based on statistical generalities. Third, there are *inference rules* that serve generally to minimize the likelihood of an erroneous decision. In this category fall such seemingly unrelated doctrines as res ipsa loquitur and rules governing application of the reasonable person test (e.g., to the insane, to those with disabilities, etc.). This is a somewhat arbitrary categorization, since I could have just as well said that every legal rule aims to minimize the expected costs of legal errors. However, rather than approach every legal doctrine as an inference rule, I have begun this discussion by analyzing the welfare implications of alternative liability rules (strict liability and negligence). To remain consistent with this approach, I will treat the inference problem within a relatively narrow scope.

Armed with the framework presented above and these functional categories, I think one can march through much of the Restatement (Second or Third), finding along the way better explanations for some of the doctrines and connections between seemingly unrelated rules. Indeed, one could use the framework to reorder the doctrines according to functional rather than formal legal categories. More important, the framework is capable of revealing areas in which the Restatement fails to clarify tort doctrine. I will follow the general outline of the Restatement (Third) draft while sparing the reader of all of the details.

IV. POSITIVE THEORY AND THE RESTATEMENT (THIRD)

A. Intentional Torts

*Restatement (Third) of Torts: General Principles* (Discussion Draft) ("Discussion Draft") Section 1 tells us that an "actor's causation of harm is intentional if the actor brings about that harm either purposefully or knowingly." Since we cannot know with certainty whether another person has acted "purposefully or knowingly," the determination of intent is a matter of inference.
Proof of purposeful or knowing conduct must, as Holmes stressed, hinge on whether the facts are such that a reasonable person would have known that his conduct would lead to harm, or that the probability of harm flowing from his conduct was very high. Viewed in this way, the determination of intent is not very different from the determination of negligence. Since defendants will not walk into court and admit intent or negligence, both require proof of facts that would lead a reasonable person to conclude that the defendant acted under the requisite mental state.

The Discussion Draft provides in the Comment to Section 1 that the “concept of intent is rendered important by the presence of a general rule . . . that imposes liability on defendants who intentionally cause physical harm.” In other words, intentional harms often give rise to strict liability. The interesting question is why. The notion that intent is just an advanced or more pernicious form of fault seems inadequate. There are important instances in which an actor can harm another intentionally without having to worry about strict liability. For example, if I open up a convenience store next door to yours and sell the same goods for one dollar less, I must know that I will put you out of business. But I will not be held strictly liable for your loss, and probably not liable at all. Moreover, the intent cases reveal two levels of intent: “general intent,” or intent to carry out the act, and “specific intent,” or intent to harm. Only the former level of intent is required in most cases, which suggests that intent is generally no more pernicious as a form of fault than negligence.

The liability rules governing intentional conduct serve as examples of channeling rules designed to reduce the scale of certain activities. For those activities for which the ratio of externalized costs to externalized benefits is greater than one, intentional conduct generally gives rise to strict liability. Another distinction to incorporate in this set of cases is that between high and low transaction cost settings. Harmful expropriations in low transaction cost settings should be taxed in order to discourage efforts to evade the market. Most examples of intentional torts giving rise to strict liability fall under these categories.

Consider examples 2 and 3, from the Discussion Draft:

23. HOLMES, supra note 3, at 147-49.
24. Discussion Draft, supra note 2, § 1 cmt. a.
25. That is, they involve cases in which the ratio of externalized costs to benefits is high and transaction costs are low (e.g., most trespasses), or the ratio of externalized costs to benefits is high and transaction costs are high (e.g., nuisances). See Hylton, supra note 17, at 993.
Wendy throws a rock at Bill, someone she dislikes, at a distance of 100 feet, wanting to hit Bill. . . . Wendy's aim is true, and Bill is struck by the rock. . . .

The Jones Company runs an aluminum smelter, which emits particulate fluorides as part of the industrial process. From an early date Jones knows that these particles, carried by the air, will land on neighboring property, and in doing so will bring about a range of harms. 26

In both examples the externalized costs of the activity, viewed generally, exceed externalized benefits by a substantial margin. In such cases strict liability acts as a corrective pricing mechanism, inducing actors to take into account the expected costs of their activity to others. Although the assumption of rational accounting may appear strained in the case of Wendy, the strict liability rules will most likely lead the Jones Company to scale back its activity to a level where the marginal benefit to Jones is equal to the marginal social cost of the activity.

The typical case of trespass—Bill wanders on to Joe's property and removes the shutters from his house—falls within this analysis. If the victim has a substantial damage claim, the cost of the defendant's activity to him probably outweighs its benefits. Moreover, trespass doctrine is designed to induce actors to use the market in settings where transaction costs are low. The more extreme case of an actor who trespasses with an intent to harm—Bill wanders on to Joe's property to throw rocks through his windows—is also easily in the same category. In the more extreme case of trespass with intent to harm, it is clear that as a general matter, net external costs of the activity are substantial and the actor should be encouraged to bargain for his desired result. Courts often award punitive damages in these cases because they recognize that simply internalizing costs may not be enough; it is better to eliminate the activity entirely, which is the goal of overlapping criminal prohibitions. 27

The Comment to Section 1 notes, without attempting to explain, several features of intentional tort doctrine that seem inconsistent with the broader scheme of intentional tort doctrine or tort doctrine in other areas. The framework of this Paper easily explains these features. For example, consider the various doctrines requiring proof of more than an intent to bring about harm, the trans-

26. Discussion Draft, supra note 2, § 1 cmt. d, illus. 2-3.
ferred intent rule, and the subordination of traditional negligence defenses under intentional tort doctrine.

For several intentional torts, intent to bring about the harm is a necessary but not sufficient condition for liability. Consider the torts of assault, intentional infliction of emotional distress, and loss of prospective economic advantage. Although the details of the rules differ in each case, each tort requires the plaintiff to prove a higher level of intent than merely intent to carry out the act leading to the harm. For example, assault doctrine requires the plaintiff to prove that the defendant intended to harm or create the impression of impending harm. This goes beyond the trespass and battery rules, which require proof merely that the defendant intended to carry out his conduct.

I think it is not hard to show that each one of the torts requiring proof of more than general intent essentially requires proof of specific intent, or intent to harm. This is obvious in the case of assault. The tort of intentional infliction of emotional distress requires proof that the defendant’s conduct was “outrageous.” No one has a good legal definition of outrageousness, but the purpose of the requirement is to distinguish ordinary insults from expression that would create significant distress in the average person. Such expression, it is reasonable to infer, must have been uttered with an intent to harm the listener. I could continue through the other torts in this category—e.g., malicious prosecution, interference with prospective economic advantage, and others—but in each case I am sure the argument would be the same, that the doctrine essentially requires proof of specific intent to harm.

Why does the law governing assault, intentional infliction of emotional distress, and interference with prospective advantage require proof of specific intent to harm? The reason is that as a general rule the ratio of externalized costs to externalized benefits is less than one for these activities. Each involves a substantial intermingling of possibly harmful with beneficial activity. Assault cases, and those involving intentional infliction of emotional distress, often involve aspects of expression. As an activity, expression typically provides substantial external benefits. As John Stuart Mill argued, free expression enables the correction of false beliefs. From a better known economic perspective, expression is a public good in the sense that it can provide the same benefits to numerous

28. Restatement (Second) of Torts § 46 (1965).
consumers.\(^{30}\) Most economics textbooks explain that public goods should be subsidized, which is what the law does in effect by requiring plaintiffs to prove specific intent to harm.

Transferred intent doctrine makes obvious sense once we view strict liability as controlling activity levels. It does not matter whether Wendy aimed to hit Bill or Joe with a rock. The transferred intent doctrine guarantees that Wendy will pay for the harm regardless of the identity of the intended victim. The aim is not to punish Wendy for desiring to hit Bill with a rock, but to give Wendy an incentive to "price out" her own potentially harmful conduct before acting.

The subordination of traditional defenses, such as assumption of risk and contributory negligence, is also easy to understand when strict liability is viewed as a rule designed to channel liability toward activities that externalize far more costs than benefits, or far more costs than most activities. To allow a contributory negligence or assumption of risk defense for battery would relieve batterers of part of the cost of their activity, a partial subsidy. But there is no good argument for subsidizing battery. Where the harms outweigh the benefits, we should regulate the activity by making the actor pay the full costs. Even when the foreseeable harms are relatively small, we still want the actor to face the risk of paying the full costs, so that he understands that he should seek a consensual transaction from the victim.

B. Negligence

Since the Discussion Draft tells us that the balancing test or Hand formula is clearly the dominant method of determining negligence,\(^{31}\) the main issue of interest is how one goes about inferring negligence. The balancing test balances the burden of precaution against the incremental expected harms in the absence of precaution. As Learned Hand put it, the balancing test compares \(B\) with \(PL\), where \(B\) is the burden of precaution and \(PL\) is the (incremental) probability of harm \((P)\) multiplied by the harm \((L)\).

There are, to be sure, several special tort doctrines that follow more or less directly from the balancing test. The "emergency rule" of Discussion Draft Section 7 recognizes that in emergencies the actor may be especially prone to make mistakes in attempting


\(^{31}\) Discussion Draft, supra note 2, § 4 cmt. d.
to comply with the reasonable care standard, since an actor in an emergency may be too frightened or distracted to make roughly accurate guesses as to the magnitudes of $B$ and $PL$. The rules governing the negligence of children also follow directly from the $BPL$ test. Ordinarily, a child is held to the standard of a reasonably careful child of the same age, experience, and intelligence. This implies that adults must take extra care to avoid injuring a child, which follows from the balancing test because even when children are acting reasonably (given their capacities) the risk of injury ($PL$) is higher than in a setting with only adults. Since adults can observe and predict the harms associated with this higher level of risk, they must adjust their levels of care upward. Adults are relieved of this responsibility when children are engaged in adult activities, for in such cases adults generally cannot observe the higher level of risk. Most adults will assume that actors engaged in adult activities, such as driving, are adults.

The balancing test is conducted from the perspective of the reasonable man. This forces a statistical averaging or objective approach to inferring negligence. There are several implications of this approach noted in the literature. Holmes, as usual the first to come to this issue, noted that the negligence test makes no special allowances for the awkward; the test “does not attempt to see men as God sees them.”32 People who have trouble complying with the conduct of the reasonable person, for unobservable reasons, are in effect subjected to strict liability. Holmes saw this problem as exposing a fundamental weakness in claims that negligence doctrine is consistent with moral theory. Mark Grady, more recently, has argued that the negligence test operates in effect as a strict liability rule in cases involving nondurable precaution.33 The reason is that people simply cannot be careful all of the time. Someone will slip up eventually, and competition will force you to take on some risk of error. While Holmes envisioned negligence falling unfairly across a population of different actors with randomly distributed abilities, Grady envisions the negligence rule falling unfairly over time against a single actor as he passes through random realizations of his own ability levels. The averaging under the balancing test also excludes certain desires or objectives,34 such as those of the motor-

32. Holmes, supra note 3, at 108.
34. Discussion Draft, supra note 2, § 4 Reporter's Note (citing Gregory C. Keating, Reasonableness and Rationality in Negligence Theory, 48 Stan. L. Rev. 311, 369 (1996)).
ist who likes to race, which some regard as supporting the moral theory of negligence doctrine. I might add to this the case in which the negligence rule fails to consider the ephemeral benefits or desires of the average actor, perhaps as another point on the side of the moral vision.

The reasonable person test should be viewed as an inference rule, having nothing to do with the morality issue. The BPL test involves some components that are either unobservable or imperfectly observable to jurors. The most important one is the defendant’s burden of precaution, B. The jury cannot observe this quantity, and the defendant has every incentive to assert that it is extremely high. The jury does observe the general population distribution of B. Hence, in a rational inference system, the jury should tend to put a great deal of weight on the average drawn from the general distribution, unless the defendant can offer concrete proof that his burden of precaution is far above the average. It follows immediately from this that rules excluding unprovable claims of unusual awkwardness or unusual desires would be a part of the balancing test. The reasonable person test incorporates such rules.

It is hard to distinguish how such a rational inference system would differ from one in which there is an alleged “hindsight bias.”35 Hindsight bias apparently occurs because people think things are more likely to happen once they happen. While that is true, the difficult part is determining whether this should be labeled as a bias. Bayesians will update their predictions of the probability an event will happen after it happens.36 This much of hindsight judgment is entirely rational and should not be treated as a type of cognitive bias. Moreover, it is extremely difficult to design a test that would distinguish Bayesian updating from an alleged hindsight bias. To this we should add the strategic problem referred to above: that juries must discount claims by the defendant that the probability of harm is extremely low, because they know that the defendant’s incentive is to lie. A rational jury will therefore put a great deal of weight on the Bayesian adjusted estimate of P rather than the defendant’s evidence of P.

The class of inference rules also includes doctrines governing unreasonable conduct due to mental or emotional disability. Dis-


Discussion Draft Section 9c says that “[u]nless the actor is a child, the actor’s mental or emotional disability is not considered in determining whether conduct is negligent.” The rationale follows from the foregoing argument. It is very hard to tell whether someone is too emotionally unstable or unintelligent to comply with the reasonable care standard. Even if such a defense were permitted, juries would discount defendants’ attempts to use it after its abuse became common knowledge. The defendant in *Vaughan v. Menlove*\(^{37}\) argued that the reasonable care standard is unfair and unpredictable from the perspective of an actor who is mentally incapable of complying. However, the uncertainty problem would be considerably worse if the disability defense were allowed. If juries did not discount the defense entirely, the reasonable care standard would become too uncertain to serve as a constraint on conduct.

### C. Duty

The Discussion Draft takes a rather vague and uncommitted stance on the duty issue. Discussion Draft Section 6 says explicitly that “[f]indings of no duty are unusual, and are based on judicial recognition of special problems of principle or policy that justify the withholding of liability.”\(^{38}\) We are told in Comments c and d of areas of the case law in which the duty issue seems to be an appropriate area of concern. However, there is no discussion of underlying principles. The Reporter’s Note buries the duty issue even further, noting that “[m]odern scholars tend to classify the issue of the foreseeable plaintiff under the general heading of proximate causation.”\(^{39}\)

The DiscussionDraft’s treatment of duty illustrates the need for further development of the positive framework for tort doctrine and integration of that framework into the Restatement project. The duty doctrines are examples of channeling rules that allocate liability largely in response to activity level concerns. For example, consider the general rule that a landowner owes no duty to a trespasser, save that of intentionally or recklessly harming him. This rule is simply a complement of the strict liability rule imposed on trespassers. The strict liability rule deters or reduces the scale of trespassing as an activity. In order to accomplish this function, the rule must be joined by a complementary rule relieving the landowner of a duty to provide and care for the trespasser. This is the

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\(^{39}\) *Id.* § 6 Reporter’s Note.
policy underlying the rule that a landowner has no duty to a trespasser.

Consider the general rule that there is no duty to rescue. There are so many exceptions to this rule that one can fairly doubt whether there is any substance to the general rule at all. However, the rescue doctrine should be viewed as a rule that channels tort liability away from actors whose activities are not causally or probabilistically related to the victim's harm. Generally, tort law imposes negligence liability only on those actors who should have foreseen the victim's harm as a likely consequence of their activity. This is not the case in the rescue settings where no duty is found. A person reading a book on a beach does not foresee another person drowning as a result of his activity.

Now one could argue that a duty to rescue would force the man on the beach to foresee the possible drowning accidents around him. But this would require him to be aware and prepared to react to the drowning risk at all times. Since the cost of complying with this expectation is so high, many potential rescuers would avoid the risk altogether and stay home. Thus, as Landes and Posner recognized, the essential rationale for the rescue doctrine is based on its activity level effects.40

Many scholars and courts treat duty issues as part of the proximate cause question today. This is a sensible approach, given that the function of proximate cause is to channel liability away from actors engaged in activities that are not causally or probabilistically related to the victim's harm. However, this is an approach that creates some losses in doctrinal clarity. If channeling issues are dealt with as matters of duty, then they are matters of law, which courts will treat as important precedents. If, on the other hand, they are treated as matters of proximate cause, then they are primarily questions for the jury. As jury questions, they fail to create important rules to guide future courts.

The question whether channeling issues should be dealt with under proximate cause or duty doctrine returns us to one of the important functions of inference rules. Inference rules provide predictability and stability to the law by preventing courts from giving

40. See William M. Landes & Richard A. Posner, Salvors, Finders, Good Samaritans, and Other Rescuers: An Economic Study of Law and Altruism, 7 J. LEGAL STUD. 83, 99 (1978); see also Richard A. Epstein, A Theory of Strict Liability, 2 J. LEGAL STUD. 151, 198-99 (1973) (noting difficulty of distinguishing easy, or cost-justified, rescue situations from difficult rescue situations). Given the high risk of error in any attempt to apply a negligence rule to rescue attempts, the effect of a negligence rule should be equivalent to that of a strict liability rule.
weight to unverifiable defenses. Duty rules, in addition to serving the channeling function spelled out here, also serve the same function as inference rules, when compared to the alternative of proximate cause analysis. Duty rules are to some extent preferable to proximate cause rules, because they contribute to the predictability of legal doctrine. And if actors are supposed to comply with the tort rules, the courts should be aiming to state them with some degree of clarity. Thus, it should not be regarded as a matter of indifference whether questions of duty are dealt with as "duty rules" or as proximate cause rules. The more consistent and reliable duty doctrines (e.g., no duty to a trespasser) should be analyzed by courts under the heading of duty rather than proximate cause.

D. Strict Liability

Tort law includes several forms of liability labeled strict: liability for animals, abnormally dangerous activities, nuisance, producer liability, vicarious liability. However, not all of these versions share similar doctrinal features. The first three have similar doctrines, and fall under the framework of this paper. Products liability includes two components referred to as strict liability: liability for manufacturing defects, and liability for defective designs. Liability for manufacturing defects is perhaps the only example in tort law of pure strict liability, in the sense that an injury caused by a manufacturing defect leads directly to liability. Design defect doctrine, though labeled strict liability, actually applies a type of negligence test to the design decision. Vicarious liability, as the Restatement (Third) of Torts: General Principles (Preliminary Draft No. 2) ("Preliminary Draft No. 2") Comment notes, requires proof of negligence against the agent.41

I will focus here on liability for abnormally dangerous activities. Preliminary Draft No. 2 Section 21 defines an abnormally dangerous activity as follows: (1) The activity creates a foreseeable and highly significant risk of physical harm even when reasonable care is exercised by all actors; and (2) the activity is not a matter of common usage. Restatement (Second) Section 520 defines an abnormally dangerous activity by the following six factors: (a) existence of a high degree of risk of some harm to the person; (b) likelihood that the harm that results from it will be great; (c) inability to eliminate the risk by the exercise of reasonable care; (d) extent to

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41. Preliminary Draft No. 2, supra note 2, § 18 cmt. a.
which the activity is not a matter of common usage; (e) inappropriateness of the activity to the place where it is carried on; and (f) extent to which its value to the community is outweighed by its dangerous attributes.

As between the two Restatement definitions, I find the Restatement (Second) Section 520 more informative and more consistent with the framework of this paper. The first three factors of Restatement (Second) Section 520 have been simplified and squeezed into the first factor of Preliminary Draft No. 2 Section 21 without losing any significant parts. The first three factors signal the importance of residual risk in strict liability doctrine, i.e., the risk that remains once all actors are taking reasonable care. Strict liability doctrine, under the framework presented here, is largely concerned with correcting substantial imbalances in the exchange of residual harms. If the residual risk is not "highly significant," then strict liability is probably not appropriate. The last three factors of Restatement (Second) Section 520 are not really captured by the second factor of Preliminary Draft No. 2 Section 21. Preliminary Draft No. 2 Section 21 refers only to the common usage issue, whereas the last three factors of Restatement (Second) Section 520 refer to common usage and the extent to which there is some reciprocity in the exchange of residual risks and benefits among adjacent activities.

Restatement (Second) Section 520 lays out a test that seems to guide courts in assessing the ratio of externalized costs and benefits, which is the general form of strict liability test suggested by the missing-markets framework of this paper. The first three requirements establish a threshold requirement that the residual risk (i.e., the risk externalized when actors are taking reasonable care) is substantial. The last three follow on with an important part of the test. If all of the last three factors are satisfied, we generally can be sure that there is a non-reciprocal exchange of risks between the defendant’s activity and others, or that the defendant’s activity externalizes far more risk than benefit. Given this, it is appropriate to tax the activity with strict liability, in order to give the actor an incentive to reduce its scale closer to the optimal level (return to Figure 1) or to shift the activity to a different locale.

The positive framework of this Paper suggests that the more detailed test set out in Section 520 is superior to that in Section 21. Section 21’s reference to common usage does not guide the court toward making an effort to examine the degree of reciprocity in the exchange of residual risks. Usually, if an activity is one of common usage there will be a roughly reciprocal exchange of residual risks.
However, this may not always be the case. For example, the water reservoir in *Rylands v. Fletcher*\(^{42}\) may have been a relatively common, or at least not uncommon, feature in England during the 1800s.\(^ {43}\) It would be easy to reach the conclusion that a reservoir externalizes far more non-reciprocated risk than benefit onto adjacent activities.\(^ {44}\) However, it might have been difficult to say whether the reservoir was a matter of common usage. It is troubling to find that the most recent *Restatement* effort to codify the *Rylands* doctrine might have led to a different result if applied in the *Rylands* case.

This criticism applies with greater force to Posner’s reduction, in *Indiana Harbor*, of Section 520 to a single factor—whether the harm can be eliminated by reasonable care. If one were to apply this factor alone to the *Rylands* case, one might conclude that strict liability is inappropriate in that setting. After all, it would be a bit much to ask a reservoir owner to move it to another location, and it is hard to see how he could reduce the scale of his activity. Since the activity level responses induced by strict liability are minimal in the short run, and the harm in *Rylands* might have been reduced substantially through additional care, Posner’s test could easily lead to a different result in the *Rylands* case.

In addition to suggesting that Section 520 is superior to Section 21 as a codification of *Rylands* doctrine, the theory of this Paper provides a better explanation of *Rylands*, and its place in the broader scheme of tort doctrine, than any other theory of which I am aware. The various opinions in the *Rylands* litigation make no reference to whether the defendant’s reservoir was a matter of common usage. However, the opinions do stress the inequitable exchange of residual risks in *Rylands* and similar cases. Consider Justice Blackburn’s opinion in the first appeal:

> The general rule...seems on principle just. The person whose grass or corn is eaten down by the escaping cattle of his neighbour, or whose mine is flooded by water from his neighbor’s reservoir, or whose cellar is invaded by filth of his neighbor’s privy, or whose habitation is made unhealthy by the fumes and noisome vapors of his neighbor’s alkali works, is damned without any fault of his own; and it seems but reasonable and just that the neighbor, who has brought something on his own property which was not naturally there, harmless to others so long as it is confined to his own property, but which he knows to be mischievous if

\(^{42}\) *Rylands v. Fletcher*, 3 L.R.-H.L. 330 (1868).


\(^{44}\) *Id.* at 218-19 (noting that dam failures were major disasters); see also *Richard A. Epstein, Cases And Materials On Torts* 129 (6th ed. 1995).
it gets on his neighbour's, should be obliged to make good the damage which ensues if he does not succeed in confining it to his own property.\textsuperscript{45}

Virtually all of the examples discussed in the \textit{Rylands} opinions—cattle, fumes, and water—were most likely matters of common usage at the time. The judges in \textit{Rylands} seemed to be concerned primarily with the inequitable allocation of residual risk.

Of the other theories available, Fletcher's reciprocal risk theory seems to also provide a good explanation of the \textit{Rylands} doctrine.\textsuperscript{46} According to Fletcher, tort liability is based largely on whether the exchange of risk between two actors can be regarded as reciprocal or roughly equal. Where the exchange is roughly equal, the negligence rule applies; where the exchange is unequal, strict liability applies to the actor who externalizes the most risk. This theory has an appealing simplicity and seems to explain the \textit{Rylands} case. However, Fletcher's theory lacks a solid theoretical foundation, a problem that becomes obvious the moment you ask why reciprocal risk-exchange should matter. Moreover, because it lacks a good theoretical foundation, it is inadequate, without a good deal of extra work, to explain many of the simplest negligence cases. For example, medical malpractice cases involve a doctor, who throws a lot of risk onto a patient, who in turn throws virtually no risk onto the doctor. The negligence rule applies, even though there is an obvious imbalance in the exchange of residual risks.

Having mentioned animals in the course of discussing the \textit{Rylands} doctrine, I see little need here to explore in detail the implications of this Paper's framework for the \textit{Restatement} provisions on liability for animals. Strict liability applies because of the inequitable exchange of residual risks. On the basis of this theory, it seems clear that the provisions regarding liability for animals can be treated as a special case of the \textit{Rylands} doctrine. This is as it should be, since the \textit{Rylands} opinions mention animals to illustrate the general argument for strict liability.

\textbf{V. RETURNING TO THE \textit{RESTATEMENT}'S PURPOSE}

The payoff from an extended positive framework is that it explains tort doctrine in detail, and suggests functional similarities among tort rules. The framework presented here solves the most

\textsuperscript{45} \textit{Rylands}, 3 L.R.-H.L. 330 (Blackburn, J.).

\textsuperscript{46} George P. Fletcher, \textit{Fairness and Utility in Tort Theory}, 85 HARV. L. REV. 537, 544-45 (1972).
important puzzle generated under the Holmes-Posner framework: the prevalence of the negligence rule. The framework also explains the doctrine governing "specific intent" (intent-to-harm) torts such as assault and intentional infliction of emotional distress; the importance of the distinction between general and specific intent torts, and its implications for punitive damages; the function, as well as the relative merits, of duty and proximate cause rules; and the specific contours of strict liability doctrines. These are all areas of tort doctrine that are either unexplained or insufficiently explained under the Holmes-Posner framework. The framework of this Paper also extends our understanding of the reasonable-person standard and functionally related rules.

A detailed positive theoretical framework is useful to the Restatement project in explaining rules, ordering them by function, and avoiding mistakes in interpretation. There is always a choice in any project such as the Restatement whether to lay out the rules according to formal legal categories or to lay them out according to some notion of their functions. Since the Restatement of Torts has traditionally been laid out according to formal legal categories (intent, negligence, etc.), revisions should continue with this format. However, a better sense of the functional similarities among rules should enhance efforts to clarify by reducing the fragmentation or diffusion of legal concepts. It also helps avoid revising in the wrong direction.

I think the framework here itself makes a case for incorporating positive theory as a central part of the Restatement project. The law changes over time, in response to changes in technology and preferences. It is important, in view of its fluidity, to get a glimpse of the underlying skeletal structure of legal doctrine, which is what positive theory aims to do. Of course, Langdell thought he was getting at the skeleton of the law too, but there is a big difference between positive theory, as understood today, and the Langdellian project. While the Langdellian approach aims to discover a core set of fundamental legal rules, which is a doubtful exercise, the positive theory approach aims to discover the functions of legal rules, and to work backwards toward a deeper understanding of rules from an understanding of their functions. The relative merits of these two approaches have been revealed over the past century. While the Langdellian approach has yielded no useful insights into tort doctrine, the positive theory approach, begun with Holmes' decision to break from the Langdellian mold, has given us an enormously useful framework for understanding tort doctrine.
Moreover, positive theory constrains “restaters” (everyone involved in the Restatement project) of the law in a manner that enhances the value of the Restatement. It is much harder to push the law in a novel, unwarranted direction when one is also constrained to remain consistent with a broader theoretical framework. This enhances the long-term value of the Restatement by dampening opportunities to use it as a launching pad for legal reform efforts. This, in turn, benefits “restaters” by reducing incentives for legal pressure groups to insert themselves into the Restatement project.⁴⁷

VI. CONCLUSION

The positive tort theory framework of Holmes and Posner is largely successful, though lacking sufficient detail to explain many tort doctrines. I have extended the framework here and applied it to the Restatement (Third) of Torts. The extended framework explains tort doctrine at a highly detailed level, which is important if positive theory is to be useful to the Restatement project.

⁴⁷ Of course, one approach to this problem is to always have highly-respected Reporters of the caliber of Professor Schwartz, in order to discourage pressure group efforts. But I would prefer to design a system that minimizes the risk of pressure group influence.