Origin of the Modern Standard of Due Care in Negligence

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NOTE

ORIGIN OF THE MODERN STANDARD OF DUE CARE IN NEGLIGENCE

Negligence is behavior that a reasonable man or woman would recognize creates a “risk . . . of such magnitude as to outweigh what the law regards as the utility of the act . . . .”¹ In many circumstances a person escapes liability for the consequences of negligent behavior,² but the standard by which negligence is determined does not vary.³ Leading commentators,⁴ and many courts,⁵ formulate the standard of due care in terms of utility, as do some pattern jury instructions.⁶ When defined as an objective measure of utility, the standard by which negligence is determined may be stated in mathematical terms ⁷ and in dollar amounts;⁸ “utility” may then be synonymous with economic efficiency.⁹

1. Restatement (Second) of Torts § 291 (1965).
2. Negligence is traditionally defined as the breach of a duty, see notes 30–62 infra and accompanying text; liability may be avoided if there is no “antecedent duty to use due care with respect to the interest invaded.” James, Scope of Duty in Negligence Cases, 47 NW. U.L. Rev. 778, 778 (1953). Defendant may also escape liability if the damages complained of are too remote or unforeseeable, see notes 47 & 53 infra and accompanying text, or if plaintiff was negligent or assumed the risk. W. Prosser, Handbook of the Law of Torts §§ 65–68 (4th ed. 1971).
3. The standard, personified as the behavior expected of a “reasonable man,” applies even to the insane. Restatement (Second) of Torts § 283B (1965). Courts acquire some latitude from the notion that circumstances limit the reasonable man’s behavior. A defendant’s disabilities, including extreme youth, may be included in the “circumstances,” although courts purport to apply the same reasonable-man standard. See, e.g., Charbonneau v. MacRury, 84 N.H. 501, 153 A. 457 (1931) (infant not required to act as adult).
5. The leading modern cases are United States v. Carroll Towing Co., 159 F.2d 169 (2d Cir. 1947), and Conway v. O’Brien, 111 F.2d 611 (2d Cir. 1940); earlier cases are collected in several texts, see note 4 supra. See also notes 102–10 infra and accompanying text.
7. See Conway v. O’Brien, 111 F.2d 611, 612 (2d Cir. 1940).
8. See note 42 infra and accompanying text.
9. See note 16 infra and accompanying text.

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R.A. Posner has therefore defended continued use of the negligence standard for liability as a means of producing the most efficient allocation of scarce resources.¹⁰ Other writers have advocated a standard of strict liability, denying that the application of the negligence standard produces, in theory or in fact, an economically desirable result;¹¹ still other commentators deny liability is, or should be, grounded on economic theories.¹²

This Note will show that the modern test of negligence was founded about 1900 on the practice of business enterprises and justified by economic theory.

I. The Modern Standard of Due Care

In the now widely accepted view of Jeremy Bentham, government and laws should seek the greatest social good.¹³ Given two additional assumptions, this general proposition of Bentham's generates the standard of due care applied in negligence law. The first assumption is that the risks and values weighed by individuals in varying circumstances are always comparable: the determinants of behavior, whether conscious or unconscious, are all of like kind. If this assumption is true, we can aggregate risks and benefits in some meaningful way. The second assumption is that the risks and values on which behavior is based can be quantified, so that the magnitude of different aggregations of individual choices can be compared. If these two assumptions are valid, then the purposes of individual actions can be summed. The intended benefits of the behavior are its social good, and we can determine when

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¹³. By the principle of utility is meant that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question . . . .

A measure of government . . . may be said to be conformable to or dictated by the principle of utility, when . . . the tendency which it has to augment the happiness of the community is greater than any which it has to diminish it. J. BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION, in 1 THE WORKS OF JEREMY BENTHAM 1-2 (1962; first published 1789).

this overall benefit is maximized by adding the results of all behavior. A
government can secure the greatest social good simply by requiring each
individual to seek the greatest social good with each act, the require-
ment imposed by the law of negligence.\textsuperscript{14} If one or both of the
assumptions fail, however, Bentham’s general principle cannot be trans-
lated into a rule of individual behavior. If the goals of personal
behavior cannot be added or compared in magnitude, one cannot
measure their social utility.

Whatever validity these two assumptions appeared to have in the early
nineteenth century, they no longer appear to be generally true.\textsuperscript{15} To-
day, we accept the existence of unconscious and irrational motives
unique to an individual’s history and circumstances. When such mo-
tives operate, we cannot easily imagine how aims are to be measured or
compared. The overall social good cannot be a sum of irrational or
sadistic purposes.

In one area of human behavior, economic activity, however, we
continue to assume that people act on rational calculations of measure-
able values. Economic theory attempts to describe those aspects of
behavior that can be reduced to a common numerical measure.\textsuperscript{16} Ben-
tham’s view of the law, therefore, is particularly appropriate for regulat-
ing economic activity in which public policy generally assumes it is
possible to calculate and to produce the greatest social good.

In Bentham’s time, as now, however, there were many competing
economic theories from which one could deduce different means of
efficiently producing and allocating scarce resources among members of
society.\textsuperscript{17} To prescribe the correct guide for individual conduct one had
to choose the correct economic theory.

The dominant economic theory in Bentham’s time, as it is now, was
that first presented by Adam Smith in \textit{The Wealth of Nations}.\textsuperscript{18} That

\begin{itemize}
\item \textsuperscript{14} See notes 23-28 \textit{infra} and accompanying text.
\item \textsuperscript{15} See, e.g., B. Skinner, \textit{Beyond Freedom and Dignity passim} (1971).
\item \textsuperscript{16} Paul Samuelson accepts as one short description of economics, “the study of
those activities which, with or without money, involve exchange transactions among
denominators, usually money. As an empirical science, economics also makes use of
other measurements, but quantitative measurement of some sort is essential to the
economic theories discussed in this Note.
\item \textsuperscript{17} See generally R. Heilbroner, \textit{The Worldly Philosophers: The Lives, Times,
\item \textsuperscript{18} A. Smith, \textit{An Inquiry Into The Nature and Causes of the Wealth of Na-
\end{itemize}
work was a part of Smith's effort to set out the natural laws of society as Newton had described the laws of inanimate creation. Smith thought he had found the laws that impelled each person to assist in carrying out the divine plan:

[B]y acting according to the dictates of our moral faculties, we necessarily pursue the most effectual means of promoting the happiness of mankind, and may therefore be said in some sense to co-operate with the Deity and to advance, as far as in our power, the Plan of Providence.\textsuperscript{19}

Smith argued that in economic dealings people were generally motivated by the desire for personal gain, their "selfish propensities": "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own self interest."\textsuperscript{20}

\textit{The Wealth of Nations} asserted that the greatest economic good would result from the efforts of each person to secure the greatest profit for himself. Competition in a free marketplace would benefit those workers and businessmen best able to employ scarce resources in satisfying the wants of others,\textsuperscript{21} so that the marketplace would translate private profit into social good.\textsuperscript{22}

The theories of Bentham and Smith, taken together,\textsuperscript{23} clearly define the role of government and law with regard to economic activity. The greatest public good will be realized when all persons calculate private profit and loss accurately and are free to act on those calculations. Whenever behavior, such as the making or selling of goods, is subject to the operation of the marketplace, the greatest prosperity will result from the operation of the market itself, without government interference. To maximize the public economic welfare, government need merely require each individual to calculate, as a cost or benefit to himself, all results of his actions.\textsuperscript{24} If injury to others might result from planned behavior, the

\begin{itemize}
\item \textsuperscript{19} \textit{Id.}\ at 27.
\item \textsuperscript{20} \textit{Id.}\ at 119.
\item \textsuperscript{21} \textit{Id.}\ at 459-60.
\item \textsuperscript{22} \textit{Id.}\ at 460-62.
\item \textsuperscript{23} Bentham wholeheartedly adopted the economic theory of Adam Smith, \textit{see E. Patterson, Jurisprudence} 454 (1953), and the work of the two men was generally accepted as a single whole: "I would say that the Manchester men were the disciples of Adam Smith and Bentham, while the Philosophical Radicals followed Bentham and Adam Smith." L. HOBHOUSE,\textit{ Liberalism} 44 n.1 (9th ed. 1964), \textit{quoting F. Hirst, The Manchester School} (no date or page given), on the origin of the dominant nineteenth century Liberal philosophy.
\item \textsuperscript{24} Economists now refer to aspects of the world not subject to exchange as
\end{itemize}
actor must calculate whether his own profit will exceed that risk; if it will, he may proceed, and the social good will be enhanced even if predictable injury to others results in some cases.

To derive the modern law of negligence from these assumptions we need only add a conclusion: Whenever a person engages in behavior likely to increase the net social good, he will not be held liable for injuries to others in the course of his action; conversely, he will be obliged to recompense others if he injures them without adequate justification. Guided by such a rule, rational persons will avoid injuring others needlessly, thereby advancing the public welfare with the least possible constraint on individual freedom.

The shifting of loss to the one who errs may also reflect society's judgment that the negligent party is more blameworthy; many writers have noted the apparent moral component of the notion of "fault."26 The moralist and the economic view of law need not contradict. R.A. Posner suggests that the blame attached to negligent behavior derives from social "indignation" at the waste of resources and thus disposes of other proffered justifications for imposing liability on the party at fault:

If indignation has its roots in inefficiency, we do not have to decide whether regulation, or compensation, or retribution, or some mixture of these best describes the dominant purpose of negligence law. In any case, the judgment of liability depends ultimately on a weighing of costs and benefits."26

In short, once we choose a utilitarian standard, there may be many reasons for imposing punishment on those who fail to meet it.27 The

"externalities." G. BANNOCK, R. BAXTER & R. REES, THE PENGUIN DICTIONARY OF ECONOMICS 158-59 (1972). To subject such values to the presumably beneficial workings of the marketplace the government need only levy a tax on, or provide a subsidy for, behavior affecting this value, forcing each individual to "internalize" the externality by taking account of the penalty or benefit attached. Thus, the government levies a tax on pollutants, and industry must thenceforward count clean air and water as a cost of doing business. This extension of economic theory to other fields is called "welfare economics," P. SAMUELSON, supra note 16, at 454, and is most closely identified with the work of the economist A.C. Pigou. See, e.g., A. PIGOU, WEALTH AND WELFARE (1912).


27. There must be some reason for imposing liability on the defendant besides plaintiff's need for compensation, or there would be no point in shifting, at considerable expense, the burden of the injury from one party to another. Several rationales are available. See generally MacKenzie, Some Reflections on Negligence, Damages and No-
Bentham-Smith scheme requires only that the punishment induce utilitarian behavior.

The utilitarian standard for determining negligence is simply stated: One should take all precautions less costly than the injuries they prevent. The form of expression implies that it can be translated into mathematical terms and into dollar amounts when economic behavior is in question. This translation may be possible, at least in theory, when the standard is used to judge past behavior. As a guide to future action, however, the utilitarian standard is difficult and perhaps impossible to apply, as its mathematical expression will demonstrate.

II. THE MATHEMATICAL EXPRESSION OF THE STANDARD

Judge Learned Hand was the first to use quasi-mathematical language to set the standard of due care:

The degree of care demanded of a person by an occasion is the resultant of three factors: the likelihood that his conduct will injure others, taken with the seriousness of the injury if it happens, and balanced against the interest which he must sacrifice to avoid the risk.

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Fault Compensation, 10 U. Brit. Colum. L. Rev. 27 (1975). A deterrent effect is consistent with the economic rationale; deterrence is a more likely motive than the "indignation" Posner imagines we feel at the waste of resources. Every person, knowing that he will bear the cost of injuries resulting from his unreasonable actions, will prudently follow the standard of reasonable care required by law; all "externalities" will hence be internalized, and government can extend the benefits of the free market to all human activity. Whether individuals behave in this fashion is another matter. Sce notes 38-43 infra and accompanying text.


When the cost of accidents is less than the cost of prevention, a rational profit-maximizing enterprise will pay tort judgments to the accident victims rather than incur the larger cost of avoiding liability. Furthermore, overall economic value or welfare would be diminished rather than increased by incurring a higher accident-prevention cost in order to avoid a lower accident cost. If, on the other hand, the benefits in accident avoidance exceed the costs of prevention, society is better off than if those costs are incurred and the accident averted, and so in this case the enterprise is made liable, in the expectation that self-interest will lead it to adopt the precautions in order to avoid a greater cost in tort judgments.

Perhaps, then, the dominant function of the fault system is to generate rules of liability that if followed will bring about, at least approximately the efficient—the cost-justified—level of accidents and safety.

Posner, supra note 26, at 33.

29. Conway v. O'Brien, 111 F.2d 611, 612 (2d Cir. 1940).
Hand immediately followed this statement with a caution that the "factors" were "practically not susceptible of any quantitative estimate"\(^{30}\); he thought, however, that ordinary negligence was distinguishable from gross negligence because the former could be "described in quantitative terms."\(^{31}\) Hand apparently meant, correctly, that a mathematical expression need not be reduced to numerical values to retain its meaning. In *United States v. Carroll Towing Co.*,\(^{32}\) Judge Hand returned to the subject, explicitly resorting to algebra to define the standard of care. In *Carroll Towing*, a barge broke loose from her moorings and damaged other vessels. The defendant owner's duty, Hand found,

as in other similar situations, to provide against resulting injuries is a function of three variables: (1) the probability that he [the barge] will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions. Possibly it serves to bring this notion into relief to state it in algebraic terms: if the probability be called \(P\); the injury, \(L\); and the burden, \(B\); liability depends on whether \(B\) is less than \(L\) multiplied by \(P\): i.e., whether \(B < PL\).\(^{33}\)

Other formulations of the standard of due care have a mathematical cast. Henry Terry's often-quoted formulation\(^{34}\) divides the reasonableness of a risk into five factors: 1) the magnitude of the risk; 2) the value of what is risked (the principal object); 3) the value of the object for which the risk is taken (the collateral object); 4) the probability the collateral object will be obtained; 5) the probability the collateral object would not be obtained without taking the risk.\(^{35}\) These factors are expressed in words that strongly imply quantification—"magnitude," "value," "probability"—and must be balanced against each other in a manner strongly suggestive of algebra. Terry's first and second factors are the equivalent of Hand's "product" of the magnitude of injury and the probability of its occurrence. Factors four and five together give the amount by which the probability of attaining the collateral object is increased by taking the risk. Factor three is the value of the collateral object. If we follow Hand in defining due care as an algebraic inequality, Terry's formulation is that liability will attach when:

\(^{30}\) *Id.*

\(^{31}\) *Id.*

\(^{32}\) 159 F.2d 169 (2d Cir. 1947).

\(^{33}\) *Id.* at 173.

\(^{34}\) Terry, *Negligence*, 29 Harv. L. Rev. 40, 43 (1915).

\(^{35}\) *Id.* at 42-43.

\(^{36}\) *Id.*
\[(P - P')B < P''L\]

where \(B\) = collateral object;
\(L\) = principal object;
\(P\) = probability of attaining the collateral object by taking the risk;
\(P'\) = probability collateral object would have been obtained without taking the risk;
\((P - P')\) = the increase in the probability of attaining the collateral object which results from taking the risk (a positive number);
\(P''\) = the probability of injury to the principal object.

In Carroll Towing, the principal object was the interest of the other barge owners in avoiding damage; the collateral object was the defendant owner's avoidance of the expense of providing a watchman. By dispensing with a night watchman, the defendant increased the probability of achieving the collateral object from zero to unity. In these circumstances Terry's expression simplifies to
\[B < P''L\]
which is identical to the formulation of Judge Hand, demonstrating the formal equivalence of the two statements of the standard of due care.

Since the standard is to be used by a reasonable man in planning his actions, the risk of loss is really a sum of all the possible injuries that might result from the action, weighted by their respective probabilities. When the burden is a monetary cost, as it usually is, the "collateral object" for which the risk is taken is a range of possible profits or advantages of varying probabilities altered by the act. A more general and accurate form of Terry's and Hand's inequality when used as a guide would therefore be,
\[\sum_{i=1}^{n} (P_i - P'_i)B_i + \sum_{j=1}^{m} (P_j - P'_j)L_j < \sum_{i=1}^{n} (P_i'' - P_i')L_i + \sum_{j=1}^{m} P_j''L_j\]

where the subscripts \(n\) and \(m\) designate the different possible benefits and losses that might result from a given action and their corresponding probabilities. The values of \(n\) and \(m\), and therefore the number of terms on each side of the inequality, would be infinite in most instances because the consequences of an act spread outward in space and time like ripples in a pond. The probabilities of more distant events occurring as the result of a given action will decline toward zero, but the size of the benefit or loss of remote consequences may be indefinitely large,

on the principal of the nursery rhyme: for want of a nail, a kingdom was lost. No terms in the sequence, therefore, can be neglected beforehand, and the reasonable man cannot significantly reduce the complexity of the calculation. In some instances the reasonable man may be able to translate the unwieldy infinite series given above into a problem in calculus. There are clearly practical questions, however, even if a manageable general expression can be written, whether the values of the probability, benefit and loss can be even approximately determined; whether anyone could actually make these complex calculations in advance of an act; or whether a judge or jury could use them to weigh the reasonableness of the risk taken. Further, there is a serious question whether the mathematical expressions developed here have any meaning before the fact. The sums on the two sides of the inequality will both be infinite unless the series each converge—unless the size of possible injuries, for instance, is such that increasingly large injuries become increasingly improbable at a rate that assures the sum of all the terms on the right will be a finite number. 39 There is no reason to think that this will be the case in most circumstances.

One way to give the inequality meaning would be to set an arbitrary cut-off on the value of $P$, defining probabilities below that value as injuries or benefits too remote or unforeseeable to take into account. This would give the notion of “proximate cause” a precise meaning. How this cut-off could be set, however, is unclear. It would itself be a variable: Very large accidents of very small probability should be taken into account, for instance, while small accidents of small probability should not. In short, Hand’s mathematical expression would not, even in theory, be solvable unless further complicating assumptions were added.

It is difficult to see how any of these objections to Hand’s inequality can be avoided if it is to be used as a general guide to behavior. Clearly, the inequality only has practical meaning as a post hoc means of evaluating actual injuries and benefits. When used in retrospect, the inequality presents fewer problems. The costs, benefits, and probabilities attaching to each possible action can be calculated and reduced to common numerical terms. While difficult, these cal-

38. See generally R. Courant & F. John, Introduction to Calculus and Analysis (1965).
Calculations would not be impossible for a large organization with extensive records of the consequences of past actions. All the variables in the inequality can be stated, in theory, in dollar terms; juries must reduce the effects of negligence to a dollar amount in all tort suits.\textsuperscript{40} The probability of any event can be expressed as a number, and, of course, measures to prevent most injuries can be translated into dollar costs. It has become common in recent years to state even aesthetic and environmental values in numerical terms\textsuperscript{41} and to count the cost of complex human activities, with potential losses of lives and health, as a present dollar value.\textsuperscript{42}

The economic interpretation of the standard depends on the assumption that individuals can make use of it, in advance of an action, in planning their behavior. Given the complexity of the calculation involved in using such a standard before the possibilities have been narrowed, and the improbability of any single individual having the needed information in usual circumstances, this assumption does not recommend itself except for use by large enterprises.\textsuperscript{43} If we do assume that the standard of utility is used as a guide to behavior, however, the

\textsuperscript{40} See 1976 Wash. U.L.Q. 135, 136.


\textsuperscript{42} See, e.g., 4 Environmental Statement: Liquid Metal Fast Breeder Reactor Program § 11 (1974) (estimating the present dollar value of different plants for the nation's electric power industry as a whole over the next 30 years). A theoretical basis for translating subjective values into objective measures is given by J. Dewey, Theory of Valuation (1939) and a more recent work, P. Caws, Science and the Theory of Value (1967), treating values as statements about desired outcomes.

\textsuperscript{43} While it is theoretically possible to assign numerical values to the terms in Hand's inequality or its expanded and more general form, one may still question the ability of individuals to obtain the required information. It is possible, however, that juries can make the narrower determination required after the event has narrowed the range of possible injuries and benefits. The Delphi technique of forecasting, developed at the RAND Corporation, O. Helmer, Social Technology (1966), uses panels of laymen to develop estimates of the value of probabilities or other values not known precisely to any of the panel members; such panels, which in some ways resemble juries, have been able to make reasonably precise estimates and predictions. See generally R. Ayres, Technological Forecasting and Long-Range Planning (1969); E. Jantsch, Technological Forecasting in Perspective (1972). If juries do apply the Hand test, their verdicts can be predicted, of course, and the Hand inequality is a mathematical model of jury deliberation. This possibility is open to empirical test by anyone with sufficient motive and funds.
economic interpretation of the standard is straightforward. The terms of the inequality stating the standard can be given precise expression as dollar values; the standard becomes a requirement that all actions be profitable. There is no requirement that each action be the most profitable to society or to the actor; laissez-faire economic theory predicts that when each individual guides his decisions according to their profitability to himself, overall economic benefit to society will be maximized. Prospectives profits are notoriously difficult to calculate: Only large business enterprises, which have access to extensive information about the consequences of past activities and the costs of new ones, are likely to find the utilitarian standard easy, or even possible, to apply without frequent error when planning their actions.

One should avoid all risks "of such magnitude as to outweigh what the law regards as the utility of the act . . . ." This requirement seems so logical that one might conclude that a utilitarian standard has always been the measure of reasonable behavior. A conscious effort is needed to see that balancing the value of an action against its risks is a modern notion, which ordinary individuals will find difficult or impossible to apply. Until recently, the law imposed a much less demanding requirement.

III. THE STANDARD OF CUSTOM

In tracing the origin of the modern standard of due care, one need not resolve the much-disputed questions about the origin of negligence actions. By the beginning of the eighteenth century, well before Adam Smith wrote, negligence was accepted as a basis of liability in some forms of action. The question for the present inquiry is what standard of behavior was required once negligence itself had been recognized.

44. See notes 13-23 supra and accompanying text.
45. See note 1 supra.
46. The utilitarian standard was set forth in the Restatement of Torts § 291 (1934), and in successive editions of W. Prosser, supra note 2, without any indication that any other standard of "reasonableness" had ever been used by the courts.
47. In one widely held view, negligence developed from actions in trespass and trespass on the case. See, e.g., Gregory, Trespass to Negligence to Absolute Liability, 37 Va. L. Rev. 559 (1951). Prosser sees negligence as a separate ground of liability emerging within several forms of action, ultimately taking the form of trespass on the case because of the convenience of that form. W. Prosser, supra note 2, § 28, at 139-40. See generally Peck, Negligence and Liability Without Fault in Tort Law, 46 Wash. L. Rev. 225 (1971).
The earliest cases that dealt clearly with negligence defined it as a departure from custom. The leading case of *Tuberville v. Stampe*, decided in 1697, began with the formula, "Case grounded upon the custom of the realm for negligently keeping of his fire . . . ." While the literal meaning of such formulas should not be heavily weighted, the evidence indicates that when negligence began to appear as a separate basis of liability, the standard for determining negligence was simply the common custom or the approved mode of behavior of the time. As Abraham Harari put it,

[The courts] first hit on the notion of negligence: conduct that was wrongful in the circumstances, an omission to do what ought to have been done or the doing of something that ought not to have been done. In the typical situations of every-day life in a comparatively stable society, what ought or ought not to have been done in given circumstances is usually quite obvious. No complex theory is required. It is held that defendant *ought* to have done X when in the circumstances a normal person *would* have done X.

This statement of the early law of negligence is consistent with the position taken by Holdsworth. As Holdsworth noted, it was natural that such a standard should be embodied in the notion of an ordinarily prudent man, and be objective by embodying the behavior expected of an ordinary person in the circumstances. Although the standard of the ordinarily prudent man was not explicitly laid down until 1837 in *Vaughan v. Menlove*, Holdsworth found it amply visible in earlier cases.

By the early nineteenth century, the idea of negligence as a departure from normal or approved behavior had emerged from the concealing

50. *Id.*
51. For a fuller discussion of this point, see A. HARARI, THE PLACE OF NEGLIGENCE IN THE LAW OF TORTS (1962).
52. *Id.* at 105. Harari's statement is correct, but the implication that British society was simple or stable is gratuitous. Law based on custom need not be, and was not in Britain, merely primitive; the use of custom was a part of complex views about the law and the world. See note 50 *supra* and accompanying text.
54. *Id.* at 450.
55. 3 Bing. N.C. 468, 132 Eng. Rep. 490 (C.P. 1837). Negligence had long been a basis of liability in cases of bailment; the court chose as the test of negligence the "rule adopted in cases of bailment, as laid down in Coggs v. Bernard, 2 Ld. Raymond 909 [92 Eng. Rep. 107 (K.B. 1703)]; the standard of the ordinary prudent man." *Id.*
medieval forms of action and by 1837 had been clearly formulated in terms of the behavior of an ordinary person: "The care taken by a prudent man has always been the rule laid down . . . ."\textsuperscript{57} The standard itself in specific circumstances, as well as the question whether a departure from the standard had occurred, were for the jury to determine,\textsuperscript{58} which further suggests that these were matters of fact and that the standard of due care was simply the ordinary course of behavior.

Whether the standard of custom was prescriptive or descriptive was not a matter of concern in the early nineteenth century. Interest in empirical information about human behavior is modern; the reasonable-man standard was founded on the older assumption that people behaved as they ought. That is the assumption, of course, of the philosophy of natural law, the body of beliefs that pervaded British jurisprudence in the eighteenth century:\textsuperscript{59}

Within the last century and a quarter, or thereabouts, the whole doctrine of negligence has been built up on the foundation of holding every man answerable for at least the amount of prudence which might be expected of an average reasonable man in the circumstances. Now St. Germain pointed out as early as the sixteenth century that the terms "reason" and "reasonable" denote for the common lawyer the ideas which the civilian or canonist puts under the head of "Law of Nature." Thus natural law may fairly claim, in principle though not by name, the reasonable man of English and American law and all his works, which are many.\textsuperscript{60}


\textsuperscript{58} See O.W. Holmes, \textit{supra} note 25, at 97-103 (jury should establish standard of care initially; after certain conduct is consistently labelled negligent, it should be negligence per se).

\textsuperscript{59} Blackstone's \textit{Commentaries} were an expression of their author's belief that the law of England reflected a rational natural order perceptible to the unaided reason, an order determined by God. \textit{See generally} D. Boorstin, \textit{The Mysterious Science of the Law} (1941). This view that society was, like the natural world, governed by reasonable principles, was widely shared in the Great Britain of the later 1700's. \textit{Id.} \textit{See also} A. Smith, \textit{supra} note 18. If the usual behavior of people in society is determined by divine plan, then the distinction between prescription and description of course disappears. Departure from custom is transgression of moral law.

\textsuperscript{60} F. Pollock, \textit{Essays in the Law} 69 (1922). In approving this view, the court in Beidler & Bookmyer, Inc. v. Universal Ins. Co., 134 F.2d 828 (2d Cir. 1943), noted that, "The 'reasonable man' . . . was the common law way of taking over the 'Natural Law' concepts of the Roman law and of Scholastic jurisprudence," \textit{Id.} at 830 n.7. In addition to the similarity of the reasonable man and Natural Law concepts, we can see a direct line of descent of the reasonable man via the rule adopted for bailments, \textit{see} note 55 \textit{supra}, in Coggs v. Bernard, 2 Ld. Raym. 909, 92 Eng. Rep. 107 (K.B. 1703), in which
In the early nineteenth century, therefore, negligence was a departure from customary behavior, which was at once a variation from the usual and a violation of moral precept. An alternative mode of expression was, therefore, to say that negligence was a breach of a duty.

Obedience to duties ordained by God should not produce undesirable results. Injuries therefore could be of only two kinds: the result of unlawful acts or omissions (breaches of duty); and unavoidable accidents, the consequences of inscrutable Acts of God which could not be forestalled even by a proper observance of duty. If a ship's captain failed to perform what was needed in a storm, some injuries might be traced to his breach of duty, but others would be traced to the storm itself. The captain could be liable only for the consequences of his own unlawful failure to conform to customary prudence. Liability was found when the damage complained of was the result of a breach of duty, and not when it was the consequence of some Act of God. Holdsworth points out that this distinction between the unhappy effects of departure from custom and unavoidable accident was central to the development of negligence.

"Acts of God" came to be called "unforeseeable," which meant only that a reasonable person would not properly take them into account. In Galveston, Houston & San Antonio Railway v. Crier, decided in 1907, there was evidence that defendant's train had proceeded over rotten track in the face of an evident storm. The storm was unusually severe and the court found it was a "cyclone," an Act of God. Quoting copiously from the Bible, the Texas Court of Civil Appeals held that the defendant railroad was under no duty to take Acts of God into its accounting. "'Tis the path designed for the cyclone by Him the

61. Cf. Gorris v. Scott, L.R. 9 Ex. 125 (1874) (ship's captain not liable for loss overboard of livestock due to failure to comply with public health order). A careful analysis of such cases is given in A. Harari, supra note 51, at 43-100.
62. See 8 W. Holdsworth, supra note 48, at 450.

[A cyclone] must be regarded the act of God . . . . If then, it be shown by the evidence that a cyclone was the cause of the wreck, . . . the very evidence that shows the derailment, proves its cause to be one that could not be anticipated and provided against . . . .

thunder of whose power none can understand,'” the court concluded somewhat obscurely. After thus implying that it would have been blasphemous for the railroad or its engineer to attempt to foresee a cyclone, the court quoted Pollock:

A reasonable man can be guided only by a reasonable estimate of probabilities . . . . The reasonable man . . . will neither neglect what he can foresee as probable, nor waste his time and anxiety on events that are barely possible.

The improbable or unforeseeable was by definition an Act of God.

Since the standard was the behavior expected of, and observed by, the ordinary person, taking into account all that was foreseeable, juries were permitted to apply this self-evident standard to the circumstances of each case without further legal instruction, and to decide whether the defendant's behavior conformed with what was required. The result was a body of case law which prescribed specific patterns of behavior for specific circumstances, but lacked any unifying principle more specific than that of the behavior of a reasonable person. The first effort to codify the new law of torts, Addison's Treatise, was an enormous catalogue of the rights of person and property, and the specific acts which had been found to violate such rights under particular circumstances. Addison defined negligence simply as the breach of a duty to use due care, and in the overall plan of the treatise there was no need for further analysis. Duties were simply correlative to rights and “due care” was whatever a jury of ordinary people found it to be in specific circumstances. As Clerk and Lindsell saw the situation late in the nineteenth century:

These degrees of care, however, it is impossible to define or classify, for they are infinite in number, each special set of circumstances requiring its own particular degree; so that an exhaustive catalogue of the various degrees of care would be a simple enumeration of all the decided cases. It is in each case practically a question of fact for the jury, whether the

65. Id. at 439, 100 S.W. at 1180. The source of the quoted phrase is not indicated.
67. See notes 61-65 supra and accompanying text.
69. 1 Id. at 36: “The action for negligence proceeds upon the idea of an obligation on the part of the defendant towards the plaintiff to use care, and a breach of that obligation to the plaintiff's injury.” Id., quoting Swan v. North British Australasian Co., 7 H. & N. 603, 636, 158 Eng. Rep. 611, 625 (Exch. 1862).
proper degree of care has been taken—the jury being guided by consider-
erations of what a reasonable and prudent man would have done under
the circumstances.\textsuperscript{70}

Neither the opaque generality of the "reasonable and prudent man"
standard nor the catalogue of the cases explained the law of negligence
in a satisfactory way, however, or gave much guidance about what
would be found negligent in a case of first impression. In his lectures
on the common law published in 1881, therefore, Holmes set out to
discover the "common ground at the bottom of all liability in tort . . . ."\textsuperscript{71} Holmes found this common ground in the principle that
a person would be liable for the foreseeable consequences of his ac-
tions.\textsuperscript{72}

This was a clear statement of negligence law at that time in terms
that seemed to make its operation more understandable. We must,
however, be careful not to give a modern probabilistic meaning to the
term "foreseeable," which at the time Holmes wrote still was used in
dichotomous fashion to distinguish the results of human activity, which
were always "foreseeable" no matter how unlikely, and Acts of God,
which were unforeseeable, no matter how frequent. Against Acts
of God people were powerless to protect themselves. Holmes cited
Chief Justice Nelson of the New York Court of Appeals as authority for
the formulation of the "foreseeability" standard:

All the cases concede that an injury arising from inevitable accident, or,
which in law or reason is the same thing, from an act that ordinary
human care and foresight are unable to guard against, is but the misfor-
tune of the sufferer, and lays no foundation for legal responsibility.\textsuperscript{73}

Holmes gave no further definition of what is foreseeable, but it is clear
he approved the Chief Justice's drawing a sharp line between those
events that are foreseeable and those that are not. This notion was quite
different from modern ideas of graduated probability; an event was
either foreseeable, according to Holmes, in which case precautions were
to be taken, or it was not, and any damages were to fall on the suf-
ferrer.\textsuperscript{74} Holmes gave no indication of how the two causes of events

\textsuperscript{70} J. CLERK & W. LINDSELL, THE LAW OF TORTS 413 (8th ed. 1929).
\textsuperscript{71} O.W. HOLMES, supra note 25, at 63.
\textsuperscript{72} Id. at 76-77.
\textsuperscript{73} Id. at 76, quoting Harvey v. Dunlop, Hill & Den., 193 (N.Y. Sup. Ct. 1843).
\textsuperscript{74} Id. at 76: "The general principle of our law is that loss from accident must lie
where it falls . . . . [R]elatively to a given human being, anything is accident which he
were to be distinguished, and apparently assumed that events which
were "foreseeable" were self-evidently so. But all the consequences of
an act which are possible are conceivable and so might be foreseen. The
distinction of "foreseeable" events evidently rests on what ordinary
people do, in fact, foresee.\textsuperscript{75} The standard of foreseeability, unless no-
tions of probability are introduced, is simply the standard of custom
based on experience.\textsuperscript{76}

Holmes was not trying to innovate, but to state the principles of the
law as it then existed: His further discussion of negligence shows that he
felt no need, and had no intention, to alter the basis of liability as it had
then existed for at least fifty years. Holmes could have been summariz-
ing Addison's \textit{Treatise} when he wrote:

\begin{quote}
[T]he featureless generality, that the defendant was bound to use such
care as a prudent man would do under the circumstances, ought to be
continually giving place to the specific one, that he was bound to use
this or that precaution under these or those circumstances.\textsuperscript{77}
\end{quote}

Holmes then developed his famous argument that when juries had
repeatedly found a certain pattern of behavior to be required under
certain circumstances, courts should thereafter have refused to submit
such cases to juries and held as a matter of law that the repeatedly
prescribed behavior was always required.\textsuperscript{78} Holmes was clearly in
accord with earlier commentators such as Addison, Clerk and Lind-
sell, and the courts of the nineteenth century: No standard more
specific than that of reason in general could be stated, but the examples
of due care and prudent behavior could be, and were, collected and
used as a set of patterns of duty or lawful action.

The use of the term "foreseeability" to distinguish between con-
sequences of breaches of duty and of Acts of God is also in the work of
Pollock, who in 1887 published another well-known codification of the
law of torts.\textsuperscript{79} Pollock, who conducted a long correspondence with
Holmes, discussed foreseeability in some detail; his more extended treat-
ment clearly established the word's meaning. The discussion concerned

\begin{flushleft}
could not fairly have been expected to contemplate as possible, and therefore to avoid."\textsuperscript{75}
\end{flushleft}

\textsuperscript{75} \textit{Id.} at 78: "[U]nless under the circumstances a prudent man would have
foreseen the possibility of harm," there is no negligence.

\textsuperscript{77} \textit{Id.} at 89.

\textsuperscript{78} \textit{Id.} at 89-92.

\textsuperscript{79} F. POLLOCK, \textit{supra} note 66.
"the doctrine of 'natural and probable consequences.'"\(^\text{80}\) "Natural" and "probable" were near synonyms: unexpected events were outside the natural order, and not to be foreseen:

[A] person is expected to anticipate and guard against all reasonable consequences, but . . . he is not, by the law of England, expected to anticipate and guard against that which no reasonable man would expect to occur . . . \(^\text{81}\)

This language of "expectation" evokes in a modern reader thoughts of probabilities, but Pollock, like Holmes, drew a sharp line between those events a person was to take into account and those beyond his power to prevent, that he was not to consider. He discussed the "line" bounding the foreseeable: "We shall now give examples on either side of the line."\(^\text{82}\) There was no discussion of balancing probabilities against the effort of precaution because the test of foreseeability was whether the damages in the case were to be attributed to the defendant's behavior or to an Act of God. In the ten examples given by Pollock, the question of remoteness or foreseeability of damage was distinct from the question whether the defendant's behavior was negligent: "a Trinity House cutter had by negligent navigation stuck on a shoal," and the question was whether defendant's negligence or a strong wind was the cause of damage to a wall; two contractors had been negligent in repairing a road, and the question was whether an injury to a passerby should be attributed to one of them; and so forth.\(^\text{83}\) Probability and foreseeability were not part of the standard of behavior, which at that time was determined by the ordinary person's behavior; foreseeability defined the damages for which a defendant would be held liable, in Pollock's scheme.

This formulation in terms of what we would now call proximate cause does not conflict with Holmes's definition of negligent behavior. According to Holmes, the law required one to foresee that which the ordinary person foresaw, and to protect against the hazards which were ordinarily foreseen and avoided.\(^\text{84}\) Pollock's more detailed treatment makes it clear that, even when one departed from the ordinary standard of behavior, one was not held liable for the fortuitous conjunction of that negligence and an accident against which ordinary foresight would have

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\(^\text{80}\) Id. at 36-45.


\(^\text{82}\) Id.

\(^\text{83}\) Id. at 37-43.

\(^\text{84}\) O.W. HOLMES, supra note 25, at 75-77.
been ineffective. In both formulations liability arose only on a departure from the "natural and probable." The events which people ordinarily foresaw were defined as probable, and foreseeability and custom were inextricably mixed.

This highly compressed summary of the history of the law of negligence takes us to the end of the nineteenth century, and shows a gradual elaboration but no sharp departure from the test of negligent behavior. Negligence was a departure from reason and custom which were the same, a departure in itself wrongful. The ideas of objective probability and the balancing of costs and benefits had not yet appeared.

IV. THE STANDARD OF UTILITY

Henry Terry was the first person to state the modern standard of due care in complete detail, and it is his formulation that has since been followed. Terry and later commentators, however, seem to have been unaware of the degree to which, in 1915, he departed from existing law. Once stated, the rule seemed so transparently the definition of "reasonableness" that later writers have failed to note what a considerable innovation it was.

85. F. Pollock, supra note 66, at 41-46.
86. Terry, supra note 34, at 43.
87. Throughout the essay, Terry seems to follow Holmes, and in his definition of a "reasonable" risk does not indicate in any way that he is departing from Holmes.
88. Restatement (Second) of Torts § 291 (1965), which states the general principle, for example, cites only six cases earlier than Terry's essay of which only one clearly supports the utility-of-risk rule. Chicago, B. & Q. R.R. v. Krayenbuhl, 65 Neb. 889, 91 N.W. 880 (1902), see notes 103-17 infra and accompanying text. A search of the early authorities quoted by others in support of the utility-of-risk rule reveals only one other case of arguably clear precedent: Van Schaick v. Hudson River R.R., 43 N.Y. 527 (1871). In this curious case, plaintiff was struck by a locomotive when he stepped behind a car in a switch yard to relieve himself. The court found the plaintiff contributorily negligent, basing its holding on the "urgency which was upon him alone, and which he had no right, in his duty [of modesty] to others, to permit to overcome his care for himself." Id. at 533. The analysis is in terms of strict and inflexible duties, but the court does seem to balance the importance of one duty, modesty, against another, self-preservation, in their importance to society.

The other cases cited by the Restatement are more doubtful. Galveston, H. & S.A.Ry. v. Crier, 45 Tex. Civ. App. 434, 100 S.W. 1177 (1907), see notes 64-67 supra, holds an Act of God the cause of damages. Also cited is Gavin v. City of Chicago, 97 Ill. 66 (1880) (child injured by swing bridge), which includes a perfunctory discussion of the cost and unavailability of safeguards. In Gavin, however, the court flatly holds that the city had no duty to make bridges safe for children to play upon—the injuries were "mere accident." Id. at 71. In Eckert v. Long Island Ry., 43 N.Y. 502 (1871), see notes 90-96 infra, plaintiff's decedent acted in accord with duty in risking his life to save that of a child, and he was not contributorily negligent. In Congdon v. City of Norwich, 37
Terry argued that whether behavior in given circumstances was negligent was to be determined, not by consulting previous cases with similar factual patterns, but by measuring the behavior against five factors,\textsuperscript{80} which taken together defined what we would now call the utility of the behavior: whether the aim sought by the defendant was important enough to justify the risks taken. Perhaps because it seemed so clearly correct, Terry cited no authority for this analysis of "reasonable" or for his factors, and in truth little authority then existed. Terry contented himself with the single "example" of the fact situation in \textit{Eckert v. Long Island Railroad},\textsuperscript{80} a suit for negligence brought by the widow of a man who had dashed onto a railroad track to rescue a small child from the path of a negligently operated locomotive. The rescuer saved the child's life, but was himself killed by the train. In defense, the railroad claimed the rescuer had been negligent in risking his life. The New York Court of Appeals held that the rescue effort was not negligent: "[N]egligence implies some act of commission or omission wrongful in itself,"\textsuperscript{102} and since the rescuer was under a positive duty to try to save the child's life, that act could not have been negligent.\textsuperscript{92} The court's analysis was

\begin{itemize}
\item Conn. 414 (1870) (injury caused by ice on roadway), liability depended on application of a statute creating a remedy for injuries caused by "defects" in streets. Whether an ice-covered street was "defective" "depend[s] upon the means at command, upon general usage, upon the question whether the defect . . . has been long neglected . . . . As the country advances in wealth and resources and means of improvement many defects . . . may become actionable . . . ." \textit{Id.} at 418-19. A balancing test might be found in the quoted passage, but the court was interpreting a statute rather than applying the common law of negligence, and the precedential value of this decision is small. In Beatty v. Central Iowa Ry., 58 Iowa 242, 12 N.W. 332 (1882), a man was killed when his unmanageable horse carried him onto a railway track. The court found the mere presence of the track near a highway could not be negligence, noting in dictum: "[T]he price of progress cannot be withheld." \textit{Id.} at 247-48, 12 N.W. at 334. Plaintiff alleged no other act that could constitute negligence under a governing statute. \textit{Id.} at 248, 12 N.W. at 335. In none of the pre-1915 cases cited in RESTATEMENT (SECOND) OF TORTS §§ 291-93 (1965) (Reporter's Notes) is there even a hint of the complex utilitarian analysis described by the Restatement (Second) which clearly was taken from Terry. W.L. Prosser, Reporter for the Restatement (Second), in his treatise cites only Terry and the Restatement for the "fundamental" principle of social utility as a measure of reasonableness. W. PROSSER, supra note 2, § 31, at 149 n.11. Harper and James cite their own earlier work, Prosser, and Learned Hand in Conway v. O'Brien, 111 F.2d 611 (2d Cir. 1940), but no cases before 1915 other than those already discussed. 2 F. HARPER & F. JAMES, supra note 4, § 16.9. Harper and James do quote at length from Chicago, B. & Q.R.R. v. Krayenhuhl, 65 Neb. 889, 903, 91 N.W. 880, 882-83 (1902), the only case preceding Terry that clearly articulates the modern standard.
\item 89. Terry, supra note 34, at 42-43; see notes 34-36 supra and accompanying text.
\item 90. 43 N.Y. 502 (1871).
\item 91. \textit{Id.} at 505.
\item 92. \textit{Id.} at 505-06.
\end{itemize}
clearly based on the traditional absolute standard of duty, or compliance with custom. Terry ignored the court’s reasoning, however, and analyzed the utility of the rescuer’s act: “the question was of course whether he [the rescuer] had exposed himself to an unreasonably great risk.”

In Terry’s confusing terminology, the thing put at risk by the act in question is the “principal object” (so called because it is the “object that the law desires to protect”) and the goal for which the risk is taken is called the “collateral object.” In the Eckert situation, Terry found that the principal object, the rescuer’s life, was very valuable and the probability of its loss high, but that the collateral object, a child’s life, and the risk of its loss, were also very great; hence the risk undertaken by the rescuer was reasonable. The values of the two objects, weighted by the probabilities of their realization, were roughly in balance.

Terry’s formulation of the utility-of-risk standard in 1915 has been widely adopted. The Restatement of Torts follows Terry even in the use of the terms “factors” and “utility” and in the arbitrary division of the collateral object’s value into three “factors.” While Terry is often cited among the authorities for a utility standard, however, no modern writer has noted that the 1915 essay was a major innovation, almost without support in case law. The apparent self-evidence of Terry’s analysis seems to have kept later courts and commentators from noticing that it was a radical change in the accepted view of negligence.

V. THE JUSTIFICATION OF THE CALCULUS OF RISK

During the century before Terry’s essay, courts had been trying to discern what was or should have been customary behavior in a wide range of circumstances. Negligence law arose from the application of principles no more specific than the unamplified requirement of “reason”; principles of more specificity could only have arisen from the slow codification of what judges and juries found to be reasonable behavior.

93. Terry, supra note 34, at 43.
94. Id.
95. Id.
96. Id. at 43-44.
97. Id. at 44.
98. See notes 4-6 supra.
99. RESTATEMENT OF TORTS § 291 (1934); RESTATEMENT (SECOND) OF TORTS § 291 (1965).
100. RESTATEMENT (SECOND) OF TORTS §§ 291-293.
101. See notes 86-88 supra and accompanying text.
in varying conditions. It seems an irresistible conclusion, therefore, that if negligence cases were consistent with a rule of utility, the rule was taken, not from Bentham—although he supplied the term—but from the practice of everyday life as it came before the courts in negligence cases in which the defendants were very often railroads and other large business enterprises.\(^\text{102}\)

An illustration of how this may have happened is provided by *Chicago, Burlington & Quincy Railroad v. Krayenbuhl*,\(^\text{103}\) a 1902 decision in which the Nebraska Supreme Court first set out the calculus of risk as a fundamental principal from which specific rules of behavior were to be derived. The *Krayenbuhl* situation was a common one: A child had been injured while playing on the railroad’s turntable which was not firmly secured by a lock.\(^\text{104}\) In a suit against the railroad for negligence, verdict and judgment in the trial court were for the child.\(^\text{105}\) On appeal, the plaintiff argued that one of the numerous rules by which negligence was to be tested, “the doctrine of the turntable cases,”\(^\text{106}\) governed the situation. The defendant railroad asserted a competing rule—that “the owner of dangerous premises owes no active duty to trespassing children.”\(^\text{107}\) The court carefully reviewed the authority for the turntable doctrine, noting the jurisdictions in which this rule had been adopted and those in which it had been rejected.\(^\text{108}\) The court then reviewed the authorities for the rule regarding the duty of an owner of dangerous premises, and quoted an earlier Nebraska opinion listing the specific factual circumstances in which such a duty had been found.\(^\text{109}\) The weight of this authority, the court held, was in favor of a “reaffirmance of the doctrine of the turntable cases,”\(^\text{110}\) but the court did not stop with this articulation of a traditional rule or duty standard. To reassure

\(^{102}\) In a random sample of all negligence cases decided between 1875 and 1905 in the United States, 44 percent involved railroad accidents and 13 percent street railway accidents; many of the remaining cases involved injuries to employees of industrial enterprises. Suits between private individuals were sufficiently unusual not to merit separate tabulation, and the principal nonbusiness defendants were municipalities. Posner, *supra* note 26, at 63.


\(^{104}\) *Id.* at 898, 91 N.W. at 881.

\(^{105}\) *Id.* at 899, 91 N.W. at 881.

\(^{106}\) *Id.* at 900, 91 N.W. at 881.

\(^{107}\) *Id.* at 901, 91 N.W. at 882.

\(^{108}\) *Id.* at 900-01, 91 N.W. at 881-82.

\(^{109}\) *Id.* at 901-02, 91 N.W. at 882.

\(^{110}\) *Id.* at 902, 91 N.W. at 882.
prospective defendants that this holding would not impose "unreasonable burdens on owners" of railroad turntables, the court explained the "true principle upon which cases of this character rest." 111

It is true, as said in Loomis v. Terry, 17 Wend. [N.Y. Ch.] 496, 500, 31 Am. Dec. [306], 309 [1837], "the business of life must go forward"; the means by which it is carried forward can not be rendered absolutely safe. Ordinarily it can be best carried forward by the unrestricted use of private property by the owner; therefore, the law favors such use to the fullest extent consistent with the main purpose for which, from a social standpoint, such business is carried forward, namely, the public good. Hence, in order to determine the extent to which such use may be enjoyed, its bearing on such main purpose must be taken into account, and a balance struck between its advantages and disadvantages. If, on the whole, such use defeats rather than promotes the main purpose, it should not be permitted; on the other hand, if the restrictions proposed would so operate, they should not be imposed. The business of life is better carried forward by the use of dangerous machinery; hence the public good demands its use, although occasionally such use results in the loss of life or limb. It does so because the danger is insignificant, when weighed against the benefits resulting from the use of such machinery, and for the same reason demands its reasonable, most effective and unrestricted use, up to the point where the benefits resulting from such use no longer outweigh the danger to be anticipated from it. At that point the public good demands restrictions. For example, a turntable is a dangerous contrivance, which facilitates railroading; the general benefits resulting from its use outweigh the exceptional injuries inflicted by it; hence the public good demands its use. We may conceive of means by which it might be rendered absolutely safe, but such means would so interfere with its beneficial use that the danger to be anticipated would not justify their adoption; therefore the public good demands its use without them. But the danger incident to its use may be lessened by the use of a lock which would prevent children, attracted to it, from moving it; the interference with the proper use of the turntable occasioned by the use of such a lock is so slight that it is outweighed by the danger to be anticipated from an omission to use it; therefore the public good, we think, demands the use of the lock. 112

This is a lucid derivation of the calculus of risk from the premise that the greatest social good is served by the unrestrained use of private property—Adam Smith's proposition—and the silent assumption that it

111. Id.
112. Id. at 902-03, 91 N.W. at 882-83.
is the law's purpose to secure this social good—Bentham's proposition. From these premises the court deduced that the only restraints it might impose on the use of private property were those required by the public good, and, therefore, the benefits of unrestrained business activity must in each instance be explicitly weighed against the injuries it causes. This balancing of factors has produced the turntable doctrine and other such rules, but the balance must be struck on the facts of each case by the jury, and is not a matter of application of rules of law by the court.

The Krayenbuhl court based the first clear statement of the utility-of-risk standard of negligence squarely on laissez-faire economic theory, without citing any authority for that theory. This is not surprising. By 1902, the theory of The Wealth of Nations, that public good emerges from private avarice, had been so widely adopted in the class of society from which judges were likely to be drawn that it was accepted as unquestioned fact and no longer considered a theory in need of argument or support. As early as 1884, in a concurring opinion in the United States Supreme Court, Justice Field expressly identified Adam Smith's theory with the principles of natural law set forth in the Declaration of Independence. In later years and until 1937, the Supreme Court went still further in accepting laissez-faire economic theory as a kind of natural law. It is therefore unsurprising to find a Nebraska court in 1902 reciting Adam Smith's theory as if it were a self-evident truth.

A court could discuss economics in a negligence case without any incongruity for in Krayenbuhl, as in many negligence cases of the time,

113. See notes 18-22 supra and accompanying text.
115. Among the inalienable rights secured by the Declaration of Independence, Justice Field found, was the "sacred property" of a man's business employment, id. at 757, quoting A. SMITH, supra note 18, at 223, which could not be constitutionally infringed by the granting of a monopoly.
the defendant was a railroad, and the court was at pains to point out that its holding represented no great departure from the traditional standard of customary behavior. For a business enterprise the standard of care was still the standard of ordinary behavior for a business; profits and losses were to be computed in the ordinary fashion. Courts would intervene only in the rare instance in which the defendant's own profit did not coincide with the social good. The transition from the rule of custom to a standard of utility was accomplished smoothly and almost without notice because utility, or profit, was the rule by which most defendants in negligence cases in fact regulated their behavior.

VI. IMPLICATIONS OF THE UTILITY STANDARD

The Krayenbuhl decision showed that, beneath the older language of duty and due care, courts for some time had been applying a test that required business defendants to internalize risks to the public (and to their own employees), but did not require them otherwise to depart from the guiding principle of private profit. As Posner correctly points out, this tendency of courts in the nineteenth century to require businesses to invest in safety only to the extent such investments were profitable did not necessarily mean that there was underinvestment in safety from society's view. Some injuries were to be tolerated for the sake of industrialization at a time when industrial activity was necessarily hazardous. Posner demonstrates that in a sample of all cases decided between 1875 and 1905, the courts behaved as if they were applying the standard of laissez-faire theory and so should have been aiding the optimum level of investment in safety by requiring only those protective measures less costly than the injuries they were meant to forestall.

In 1906, with enactment of the first Federal Employer's Liability Act, the doctrine of strict liability began to invade the sphere of neg-

118. Id. at 902, 91 N.W. at 882.
119. Id.
120. Posner, supra note 26, at 73-74.
121. In the sense that the cost of safety measures was less than the cost of satisfying tort judgments against them.
123. See generally id.
ligence. Strict liability in workmen's compensation cases was not a retreat from laissez-faire principles; like many liberal modern reforms, it was amply supported by marketplace economics. Negligence law was given an economic rationale, but its structure had been built in earlier times for other purposes, and it was not always suitable for the new task set by the courts. To secure adequate industrial investment in safety, rules of strict liability were necessary, as an examination of the Krayenbuhl situation reveals.

The Krayenbuhl court had no difficulty deciding that the trivial cost and inconvenience of padlocking a turntable were justified and should be required of the railroad while the expense of preventing all possible injuries to children was not. The court was not forced to consider more difficult cases between these extremes. What if the railroad had provided a padlock which was repeatedly broken open by other children? In a suit over a resulting injury, should a court have found that watchmen were also required? Alarm systems? To prove the need for such systems, or even the need for padlocks, plaintiffs should present enough information to allow a court to determine the frequency of accidents in all turntables in its jurisdiction, the cost of these accidents in dollars, and the efficacy of various possible safety measures. In each suit for negligence the court could then determine whether, in that instance, there was available to the defendant a protective measure less costly than the injuries that otherwise would have occurred. To avoid liability for negligence, all business enterprises would have to undertake such calculations to determine the level of protection against injury to employees

125. See note 130 infra and accompanying text. Workmen's compensation statutes were wisely enacted in the early years of the twentieth century. REPORT OF THE NATIONAL COMMISSION ON STATE WORKMEN'S COMPENSATION LAWS 33-35 (1972). "Based on the enterprise liability theory, state workmen's compensation statutes attempt to shift the burden of industrial accidents from the employee to the employer, and ultimately to the consumers." Kelley, Statutes of Limitations in the Era of Compensation Systems: Workmen's Compensation Limitations Provisions for Accidental Injury Claims, 1974 WASH. U.L.Q. 541, 552. The legislative choice of compensation scheme, rather than a system of regulation, is entirely in accord with the laissez-faire theory enunciated in Chicago, B. & Q.R.R. v. Krayenbuhl, 65 Neb. 889, 91 N.W. 880 (1902). Liberal reforms like the workmen's compensation statutes and modern product liability theories were based on the same economic and political theories we today identify with conservatism. Smith and Bentham are great figures in British Liberal philosophy, see L. Hobhouse, supra note 23, and laissez-faire theory is also the basis of the variety of United States liberalism, which was sought to set a middle course between socialism and toryism. See A. Walworth, Woodrow Wilson (1969); G. Wills, Nixon Agonistes (1970).
and the public. Such calculations would be enormously complex and difficult: A business enterprise, unable to know in advance what injuries should be prevented, would be forced to examine separately the feasibility of preventing each possible accident.

In many, perhaps most, negligence actions there would be insufficient information to make even a guess about the relative social costs and benefits of prevention before an injury occurred. Neither defendants nor courts, therefore, could easily apply the standard of utility, but clear and certain standards were needed. As the Krayenbuhl court recognized, the costs of forestalling accidents might easily become intolerable to small companies engaged in vigorous competition and to society as a whole if such costs hampered industrial production.

The Krayenbuhl standard would work well to prevent serious accidents of a kind known to occur frequently when a cheap and simple preventive like a padlock was available. The frequency of such accidents would be known in approximate terms from previous litigation, as in the turntable cases, and the trivial cost of prevention would be self-evident. Courts faced a far more difficult task in cases of singular, severe accidents, when the burden of prevention throughout an industry was unclear. Uncertainty in any one case could be resolved arbitrarily by a jury, but courts would eventually have to reconcile the inconsistencies among jury determinations. As in Krayenbuhl, an appellate court would have to examine explicitly the costs and benefits of safety measures.

In the years before liability insurance had become ubiquitous, when governmental recordkeeping was still limited, actuarial data were very sparse. Outside the records kept by businesses of their own experience,

126. See Moisan v. Loftus, 178 F.2d 148, 149 (2d Cir. 1949) (L. Hand, J.): The difficulties . . . arise from the necessity of applying a quantitative test to an incommensurable subject-matter . . . . It is indeed possible to state an equation for negligence . . . . But of these factors care is the only one ever susceptible to quantitative estimate, and often that is not. The injuries are always a variable within limits, which do not admit of even approximate ascertainment; and, although probability might theoretically be estimated, if any statistics were available, they never are; and, besides, probability varies with the severity of the injuries. It follows that all such attempts are illusory . . . .

See also Epstein, supra note 12, at 157; Posner, supra note 28, at 218 (agreeing with Epstein that satisfactory information is rarely available, though disputing the significance of the fact).

little or no information about the frequency or severity of accidents was available.\textsuperscript{128} In a specific case a court would be faced with the competing claims of a single injured individual as against those of the entire industry on which the cost of the required safety measure would fall. Except for precautions of trivial cost, such as a padlock, the expense to be borne by an entire industry over a long period of time could easily outweigh the cost of injuries to a single individual. The ordinary adversary proceeding would therefore create a heavy bias against the plaintiff, when the defendant was a business enterprise, particularly at a time when plaintiffs and courts had not yet made explicit the terms to be weighed in a utility-of-risk standard, and when the weight of the traditional adherence-to-custom standard was still great. In such circumstances the bias of the courts must have been toward imposing only very modest precautions on business activity, thereby requiring far less than the optimum safety investment.

Large business enterprises did not face the difficulty that confronted the courts in determining costs and benefits, for a big business had its own records of accidents and the means to prevent them. Business enterprises served their own purposes, however, not those of society at large and would not undertake optimum safety measures unless compelled to do so by law. Legislatures could not dictate the safety measures to be undertaken, for the same reason that courts had difficulty in applying the utility-of-risk standard in negligence cases: Only the defendants had the knowledge and the resources to make the required calculations.\textsuperscript{129}

According to laissez-faire economic theory, the desired result could

\textsuperscript{128} Cf. Moisan v. Loftus, 178 F.2d 148, 149 (2d Cir. 1949) (statistics on probability of injuries never available to courts).

\textsuperscript{129} See Baxter, \textit{The SST: From Watts to Harlem in Two Hours}, 21 STAN. L. REV. 1, 55 (1968). Baxter argues that imposing costs on the airlines is superior to direct government regulation in dealing with the damages caused by sonic booms. His rationale is twofold. First, there are high administrative costs in extracting information from the industry so that government regulators can impose proper controls. Second, and more important, the industry is the best source of information on which controls are optimal. Regulation creates a disincentive for the industry to produce such data; cost imposition, or strict liability, provides a positive incentive for the industry to seek the most efficient solution to sonic booms. \textit{Id.} Baxter's analysis, if valid, is equally applicable to all large industries. Cf. Calabresi & Hirschoff, \textit{supra} note 11, at 1060-63 (advocating cost imposition on the party best able to generate information on the economically optimum solution to a social cost, and suggesting that large industry will often be that party).
be obtained simply by imposing strict liability. 130 Legislatures or courts needed only to force business people to calculate—to internalize—all costs of injuries caused by their activity. Under a strict liability standard, injuries to the public would become another business cost, and entrepreneurs would devote their ingenuity by reducing that cost to a minimum. Firms most effective in reducing the cost of safety would

130. So far as economic theory is concerned, it does not matter which of the parties to an accident is held liable. The party risking liability will, according to theory, take justifiable measures to prevent accidents and the outcome will be the same under a rule of fault, of strict liability or no liability at all—in which the injured party bears the cost. See W. Blum & H. Kalven, Public Law Perspectives on a Private Law Problem 58-60 (1965); Blum & Kalven, The Empty Cabinet of Dr. Calabresi: Auto Accidents & General Deterrence, 34 U. Chi. L. Rev. 239, 246-49 (1967). There has nevertheless been a brisk argument over the merits of strict liability for business enterprise in which the proponents of strict liability have tried to show its superiority on strictly economic terms, as a more efficient means of allocating resources. See, e.g., Calabresi, Some Thoughts on Risk Distribution and the Law of Torts, 70 Yale L.J. 499 (1961). Calabresi concedes the theoretical equivalence of fault and strict liability in the economist's imaginary realm of rational decision makers, but seeks to justify enterprise liability on practical grounds, arguing that employees (and presumably consumers) do not make rational decisions and in any case are unable fully to impose their decisions on business enterprises. Id. at 505-07. Calabresi also argues that it is easier or less expensive for the business enterprise to prevent accidents, see notes 11 & 129 supra, but this is merely an assumption about where fault usually lies, not an argument against a standard of fault. A more common justification of modern enterprise liability is that this doctrine yields a result equivalent to accident insurance: the risk of accident is spread over the class of consumers. Prosser, The Fall of the Citadel (Strict Liability to the Consumer), 50 Minn. L. Rev. 791, 800 (1966) ("The 'risk-distributing' theory ... has been an almost universal favorite with the professors ... "). The theoretical equivalence of liability for fault and enterprise liability has led commentators into odd speculations concerning the court's preference for negligence. Calabresi, for instance, argued that nineteenth century courts believed a subsidy to expanding industry was needed and points out that twentieth century welfare economics would support such a result if expansion was economically justified. Calabresi, supra at 509. The railroads of the late nineteenth century were, however, by no means in need of expansion. The panic of 1893 and the ensuing depression are attributed to overcapacity in the railroad industry, see M. Josephson, The Robber Barons 375-78 (2d ed. 1962), nor were the railroads so universally favored by courts as this view assumes them to have been. Cf. Munn v. Illinois, 94 U.S. 113 (1876) (states may regulate the charges of public utilities); see also M. Josephson, supra, passim. The view urged in the text requires fewer unsupported assumptions: The negligence law of the late nineteenth century grew quite naturally out of the earlier negligence standard based on custom; the bias in favor of defendants was a reflection of this origin and of the disability plaintiffs had in assembling the information needed to show that common risks were unjustified. A rule of strict liability might have produced a better economic result, but that is a question for hindsight.

Whether negligence or strict liability is preferable at the present time is a question outside the scope of this Note.
be the most profitable; businesses with too much or too little investment in safety would founder under the weight of protective devices or be bankrupted by tort claims. Negligence law could not accomplish this internalization of accident costs because courts were unable to determine the socially optimum level of investment and so could not impose it as a requirement of law. Strict liability relieved the courts of responsibility for such decisions; the salutary effects claimed for the operation of a free market were to be obtained simply by holding business firms liable for all accidents. Each efficient firm would then minimize its own accident costs; the inefficient ones would vanish; the benefit to society would be maximized. Laissez-faire economic theory, which had given new and persuasive meaning to the standard of reasonable care, thus undercut the basis of negligence itself.

Strict enterprise liability is preferable to negligence only in certain limited circumstances. The defendants must be firms operating in a competitive free market; each firm must be large enough to determine its own optimum level of investment in safety; each firm must have liability insurance or must be large enough to pay the occasional large judgments for damages which result when only the optimum investment is made; finally, the defendant must be able to prevent injuries at least as cheaply as the plaintiff. When these conditions are fulfilled, and strict liability is imposed on all firms in a market uniformly, each firm will make the optimum investment in safety and the social good, in economic terms, will be steadily maximized.

All the conditions must be met simultaneously. When it is easier for plaintiffs to avoid being injured than for defendants to protect them,
plaintiffs should be denied recovery according to economic theory;\textsuperscript{133} in such cases negligence law and the common-law defense of contributory negligence are suitable. When both parties are natural persons, neither plaintiffs nor defendants have a uniform cost advantage in avoiding accidents. When a plaintiff is a natural person and defendant is a large business corporation, we tend to assume, rightly or wrongly, that the conditions have been fulfilled, and rarely consider whether a free market is operating.\textsuperscript{134} When a defendant is a very large corporation, or has liability insurance, we may reasonably suppose the defendant is large enough to comply with the criteria. It is interesting to note that strict liability began to appear at a time when large business corporations became visibly dominant\textsuperscript{135} and when liability insurance first became widespread.\textsuperscript{136}

Strict liability has been imposed on defendants who as a class ordinarily can prevent injuries more cheaply than plaintiffs; defendants held strictly liable include manufacturers of nationally distributed consumer goods,\textsuperscript{137} employers of injured workmen,\textsuperscript{138} and common carriers.\textsuperscript{139} A form of contributory negligence defense is often com-

\begin{footnotesize}
\textsuperscript{133} See Posner, supra note 26, at 33.

\textsuperscript{134} Many industries are dominated by a few large firms with substantial market power who may be able to pass along costs of injuries to the public without being under any compulsion to reduce those costs. See generally J. Blair, Economic Concentration: Structure, Behavior & Public Policy (1972). In such situations strict liability for business enterprises shifts the burden of injuries from plaintiffs to consumers in general, but does not encourage any investment in safety measures.

\textsuperscript{135} The years from 1895 to 1905 saw rapid consolidation of business enterprises into the first nationwide corporations:

Five of these years, 1898-1902, saw a burst of merger activity never exceeded in importance in our history, with 1,028 firms disappearing into mergers in 1899 alone. The huge turn-of-the-century merger wave produced U.S. Steel, American Tobacco, International Harvester, Du Pont, Corn Products, Anaconda Copper, and American Smelting and Refining, to name only a few. Its effect on American industry was widespread and enduring.


Eight broad industries mergers during this decade accounted for more than 40 percent of the capitalization of each industry as a whole. Id. at 172.


\textsuperscript{138} See note 125 supra.

\textsuperscript{139} Common carriers were required by the common law to exercise the "highest possible care" to passengers and were made insurers of goods entrusted to them. W. Prosser, supra note 2, § 34, at 180.
\end{footnotesize}
bined with strict liability when injuries are of a kind that plaintiffs can more easily or cheaply prevent, and with a foreseeability limitation when injuries are of a kind that the defendant either could not have taken into account or could not have prevented. All this is consistent with the laissez-faire economic theory that in other circumstances supports traditional negligence rules.

To say that strict liability, or a utility-of-risk standard of negligence, is consistent with laissez-faire economic theory is not to say that it should be adopted as law. One must first confront the question whether the theory is correct. Many people have concluded that it is not. Economic conditions have altered considerably over the past two hundred years, and even if laissez-faire economic theory is correct when applied to small, competing firms and unorganized workers, it may not be valid when applied to a modern industrial economy in which government is the largest economic unit, private enterprise is dominated by large corporations, and workers in some industries are organized into powerful unions.

If we accept the free-market economic theory as correct, however, then it follows that when a defendant is a large business enterprise, and the plaintiff is a natural person unable to guide his or her conduct by complex calculations of utility, the rule that produces the greatest social good in economic terms is a rule of strict liability. This follows simply from the assumptions that the defendant acts from economic motives, seeks maximum profit, and has enough information available to make correct decisions. In some instances small businesses with liability insurance will fulfill the same conditions, at least to the extent the enterprise can make use of the information available to the insurer.

In disputes among persons with motives other than profit who are

140. The plaintiff's behavior has been allowed as a defense in many strict liability cases. W. Prosser, supra note 2, § 102 and cases collected therein. Generally, the manufacturer will be liable unless his product was abnormally or negligently used, or the plaintiff assumed the risk. If there is a pattern in these decisions, it seems that the manufacturer is held liable when he might more easily than the defendant have prevented the accident, or might with reasonable ease have prevented all such accidents.


142. A large part of the world has adopted a competing theory. See E. Mandel, Marxist Economic Theory (1968); K. Marx, Das Kapital (1867).

143. In the United States, market-theory economics is not universally accepted, T. Veblen, The Theory of Business Enterprise (1904), nor is it always seen as applicable to modern times. J. Galbraith, Economics and the Public Purpose (1973).
unable to make the complex calculations that economic self-interest requires, utilitarian theory provides little guidance. Both utility-of-risk and strict liability standards allow one consciously to risk another's life or health in the search for private profit. The law grudgingly concedes that rescuers may reasonably endanger their own person or property for the benefit of another, but imposes no obligation to take any action whatever: one may, for example, with legal impunity sit by and watch another drown. This absence of any legal duty to rescue, it is often observed, runs against common morality. Not so often noted is that the law balances self-interest equally against the interests of others, which is also contrary to commonly espoused values. Strict liability and negligence, both expressions of the effort to produce the greatest economic good, produce the same moral anomalies.

144. See notes 31-39 supra and accompanying text.
145. See Ploof v. Putnam, 81 Vt. 471, 71 A. 188 (1908). The contrary rule is more frequently asserted: one may endanger or injure others for the sake of one's own property. Toledo, P. & W. Ry. v. Pindar, 53 Ill. 447 (1870) (plaintiff contributorily negligent for rescuing a horse instead of cash from a burning building):

> It is incomprehensible to us, that where it was so accessible and easily secured, no effort was made to remove the money. Unless [plaintiff] was careless or even reckless, we suppose his first thought would have been of the money. Unless indifferent of his loss, we do not comprehend why [plaintiff] should have thought of the horses, of comparatively small value, and not of so large a sum of money. Such a course of action would seem to imply a high degree of indifference to his interest or strong feelings of humanity; but if the latter, we are not prepared to say [defendants] should be prejudiced thereby.

Id. at 451. See also Posner, Killing or Wounding to Protect a Property Interest, 14 J.L. & ECON. 201 (1971) (analysis in terms of economic utility).
147. See, e.g., W. PROSSER, supra note 2, § 56, at 340 (calling the majority rule "shocking").