THE PRIVATE LAW TREATMENT OF DEFECTIVE PRODUCTS IN SALES SITUATIONS

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The parties to every sale face risks because the goods may be nonconforming. Courts and codifiers have pursued three goals in connection with these risks of nonconformity: (1) to allow private choice by permitting parties, under both warranty and tort law, to bargain as to who will bear them; (2) to prevent buyers from bearing concentrated losses from defective goods by allocating risks to the parties believed best able to spread those losses; and, (3) to prevent defects from occurring by allocating risks so as to improve product quality. These goals have been pursued by initially placing risks of nonconformity on sellers, but allowing sellers, subject to judicial control, to shift them to buyers by contract.†

The relationship between these goals has long been confused; consequently so too has been the manner in which risks of nonconformity have been imposed. Recently, however, a consensus is emerging that the first goal is inconsistent with the others. If, for example, a court enforces a disclaimer, thereby pursuing the goal of allowing the parties to bargain, losses from a defect may be concentrated on the buyer, thereby violating the second goal of dispersing losses. Courts now frequently resolve this apparent inconsistency by pursuing the latter two goals, of avoiding concentrated losses and improving product quality, and ignoring the former. As Justice Traynor held:

Since Maywood Bell is strictly liable in tort, the fact that it restricted its contractual liability to Vandermark is immaterial.

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1. The Uniform Commercial Code provides that all merchant sellers make a “warranty of merchantability” in connection with the goods sold, which in effect imposes most risks of defects on them, but it allows sellers to disclaim that warranty or limit the remedies arising from its breach. See Uniform Commercial Code §§ 2-314, -316, -719. Although tort law imposes risks more absolutely than sales law, sellers may nevertheless disclaim liability for negligence in manufacturing. E.g., Southwest Forest Indus., Inc. v. Westinghouse Elec. Corp., 422 F.2d 1013 (9th Cir. 1970); Neville Chem. Co. v. Union Carbide Corp., 422 F.2d 1205 (3d Cir.), cert. denied, 400 U.S. 826 (1970). Furthermore, buyers may assume the risk of “unreasonably dangerous” products which the Restatement (Second) of Torts § 402A (1965) otherwise imposes on manufacturers. E.g. W. Prosser, Handbook of the Law of Torts § 102, at 671 (4th ed. 1971) [hereinafter cited as Prosser].
Regardless of the obligations it assumed by contract, it is subject to strict liability in tort because it is in the business of selling automobiles, one of which proved to be defective and caused injury to human beings.¹

This article will consider whether a better resolution of the potential conflicts among the goals the courts have pursued can be achieved than Justice Traynor's solution of abandoning one goal in favor of the other two. Justice Traynor's result is initially surprising because the courts' goals are theoretically complementary. Buyers left free to choose will pay sellers or others to bear risks when the price these parties charge for bearing them is lower than the cost to a buyer of bearing or avoiding them himself; such transactions reduce loss concentrations. Buyers, moreover, will tend not to select products whose risks of nonconformity are high because bearing, avoiding and shifting risks all cost money. "High risk sellers" may be forced, by the loss of business, to improve their goods; there will then be fewer losses attributable to defects. An informed pursuit of private law goals therefore apparently requires courts only to enforce the bargains the parties reach.

This solution, however, is unsatisfactory because it ignores what I call the information problem. The first goal, that of protecting bargains, should be pursued only if buyers are able to make rational choices whether to bear or shift risks. This they can do only if they are informed as to the costs of bearing risks, avoiding risks by their own efforts and shifting them to others. In addition, uninformed buyers may mistakenly bear risks which they would otherwise shift had they known the costs involved, and may mistakenly take no steps to avoid those risks they do bear, with the result that excessive losses may be concentrated on them. And buyers without information may be unable to differentiate between high and low risk goods, thereby buying too many of the former; this results in insufficient improvement in product quality. Economic theory, moreover, indicates that the requisite information is unlikely to be forthcoming in the necessary amounts, since information is what economists call a public good and will thus probably be underproduced by the private sector. Some buyers may also perceive the cost of adequately informing themselves about their transactions to be higher than the gains, and may therefore not absorb information even if it is made available.

One solution to the information problem is to impose risks of noncon-

formity on sellers, who presumably possess more information about what they sell than do buyers. This is to abandon the goal of protecting bargains, but it forces uninformed buyers to "insure" with their sellers, thereby reducing loss concentrations. It also forces buyers to take the cost of risks of nonconformity into account when making purchases, thereby possibly reducing those risks. As indicated above, this is the solution many courts are adopting, either openly by embracing strict liability in tort, or covertly by manipulating factual matters so that buyers are shown to have "expected" their sellers to bear risks. The alternative solution is to provide buyers with information. Courts, however, are ill-suited to this task because they are unable to gather information and make it available to buyers prior to purchase.

Nevertheless, I argue that providing information, whether administratively or by legislation requiring sellers to disclose it, is the preferable solution. Once the information problem is resolved, the law's goals are in fact complementary. Moreover, informed bargains are more effective than risk impositions in achieving the goals of reducing loss concentrations and improving product quality, and pursuit of these goals through bargains allows the parties greater freedom. Should a policy of providing information be implemented, it then follows that courts should neutrally enforce bargains, for by doing so all of the law's goals will be achieved.

This thesis is set out in Part I, in which I examine each goal separately and ask how it can best be realized. I next consider the relationship among these goals, discuss the relevant value choices involved in resolving the information problem and, finally, analyze the difficulty, and neces-

3. E.g. Cunningham v. MacNeal Memorial Hospital, 47 Ill. 2d 443, 266 N.E.2d 897 (1971).
5. The implied textual approval of judicial risk impositions should not be overstated. Initially, the adoption of strict liability in tort is questionable because the UCC already treats the problem. See Titus, Section 402 A of the Restatement (Second) of Torts and the Uniform Commercial Code, 22 STAN. L. REV. 713 (1970) [hereinafter cited as Titus]. Also, courts have difficulty identifying information gaps and sometimes impose risks improperly. See discussion of Wilson Trading beginning at note 30 infra. Finally, some courts are unjustifiably imposing risks for reasons that have nothing to do with a lack of information. See text accompanying note 80 infra. My point here is only that when information gaps exist that no other societal institution is acting to fill, judicial risk impositions, other things being equal, are preferable to nothing.
6. This article considers the possibilities of imposing risks on sellers or providing information and allowing bargains. Risks could also be imposed on buyers. This choice is not discussed because when buyers are sufficiently informed to bargain with respect to risks, their sellers are also likely to be or can be made to be. Thus, the law's proper role is neutrality; put another way, the situations in which buyers are informed and sellers are not or cannot be informed seem too uncommon to warrant concern. Should the reader differ with this perception, the analysis above can easily be applied to the informed buyer/uninformed seller case.
sity, of neutrally enforcing bargains. Part II applies the analysis to three significant problems with which warranty and tort have coped, such as the question of unequal bargaining power. My aim is to show that better solutions than those the courts have devised are available, and that the courts have erred primarily because they are insufficiently informed as to the contributions and limitations of the market in achieving the goals they seek. Part III demonstrates the inadequacy of the Uniform Commercial Code's treatment of defective products problems—an inadequacy which also stems largely from an insufficient awareness of the market. My conclusion, briefly put, is that bargaining will adequately resolve defective products problems if information gaps are eliminated.

I. THE LAW'S GOALS

Protecting Bargains

The courts allow bargains on the premises that people can best achieve their aims when freely acting as individuals, and that there is positive value in letting people do as they wish. People, however, can competently achieve their goals only if they can make rational decisions with respect to those goals, that is to say, only if they possess the ability to choose means likely to achieve ends. Rational decisions require information. To decide whether private ordering is desirable in an area, such as the allocation of risks of nonconformity, we must therefore ascertain whether there is a gap between what parties need to know and what they are likely to know.

7. Uniform Commercial Code [hereinafter referred to as UCC or Code].
8. The problems this article treats may also be approached by having the state regulate the ways in which products may be made. A recent and potentially significant effort to do this is the Consumer Product Safety Act, 15 U.S.C.A. §§ 2051-81 (Supp. 1973), Pub. L. No. 92-573, 86 Stat. 1207 (1972), which creates an administrative agency authorized to establish safety standards for products produced for consumers and to ban unalterably unsafe products. See id. §§ 2053, 2056, 2057. Earlier Federal Statutes regulating product quality, such as the Federal Food, Drug and Cosmetic Act, 21 U.S.C. §§ 301-92 (1970), are interestingly described in P. Keeton & M. Shapiro, Products and the Consumer: Defective and Dangerous Products (1970). Efforts such as these, where the state specifies how goods are produced, are beyond the scope of this article; its subject is the utility of risk allocations in achieving the goals both public and private law share. Nevertheless, to the extent that this article demonstrates the efficacy of market solutions to defective products problems, it is an argument against doing things otherwise.
9. What I describe as the goal of protecting bargains is often referred to in sales law as the policy of protecting buyer expectations which the transaction engendered. See, e.g., R. Nordstrom, Handbook of the Law of Sales §§ 76, 81, 86, 88 (1970); Boshkoff, Some Thoughts About Physical Harm, Disclaimers and Warranties, 4 B.C. Ind. & Com. L. Rev. 283 (1963); Honnold, A Uniform Law for International Sales, 107 U. Pa. L. Rev. 299, 313-15 (1959). Similarly, the policy of bargain protection has been framed as protecting buyer reliance on representations sellers either explicitly or implicitly make about the transaction. See, e.g., McClain, Implied Warranties in Sales, 7 Harv. L. Rev. 213, 220 (1893); Prosser, The Implied Warranty of Merchantable Qual-
Assume a product with one moving part which can become defective only if that part breaks. Let \( p \) equal the probability that the part will break, and \( C \) equal the cost of the damage a defect will cause. The value of the risk of nonconformity, \( R \), will then be \( pC \). Assume further that the seller agrees to bear \( R \), and charges a price, \( X \), for doing so. \( X \) will be the cost which bearing the risk entails, which in turn will be either \( R \)'s value or the cost to the seller of avoiding it, \( A(s) \), whichever is less. A buyer must decide whether to pay the seller \( X \) for bearing the risk, to bear it himself or to avoid it through his own efforts, \( A(b) \). To make this choice, he must be able to value \( X \), \( R \) and \( A(b) \).

For example, assume that \( R \) is $16, that \( A(b) \) is $13 and \( X \), the price a seller charges for bearing the risk, is $10. Because \( A(b) \) is greater than \( X \), the buyer will not avoid the risk by his own efforts; he will instead bear it or shift it. Also, since \( R \) is greater than \( X \), the decision will be to pay \( X \). If the buyer is unable to value \( A(b) \), however, he will be unable to make a rational choice. He will know that it would be wiser to

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The reader should note that \( R \) ordinarily is the same for both parties: if a buyer bears the risk, his cost is \( pC \); if a seller bears the risk, he must compensate the buyer for any losses, i.e., pay \( C \), and thus risk cost to him is also \( pC \).

11. Avoidance costs include the cost of avoiding a defect, such as installing a safety device, and the cost of finding out what must be done to avoid defects. If a seller does not know what it will cost to avoid a defect but believes the cost of finding out together with the probable cost of altering the product to be higher than bearing the risk, his avoidance costs are higher than that risk. The textual statement that \( X \) will equal \( R \) or \( A(s) \) is inaccurate, but made for simplification. The correct statement is that \( X \) will
shift R than to bear it since it is sensible to spend $10 to shift a $16 risk, but he will not know whether to pay $10 and shift R or avoid it himself, since he is ignorant of whether his own cost of avoiding the risk will be less than $10. Similarly, if the buyer is unaware of R, he again cannot make a rational choice. He will, of course, know that it would be better to shift R than avoid it himself since a $10 payout is preferable to a $13 payout, and his business-sense will tell him that X is equal to, or less than, R. But even with this knowledge, he can know from seeing X only that R will be at least $10. If R is in fact $10, the decision whether to shift it will not be made on a comparative cost basis (since both bearing R and shifting it to the seller cost $10), but rather it will turn on other factors, such as whether the buyer likes to gamble. However, when X is less than R, as in my example, the buyer will pay X rather than bear R since $10 is less than $16. The buyer, therefore, must know R because knowledge of X alone conveys insufficient information to make the requisite cost comparisons. Finally, if the buyer is ignorant of X, he again cannot make a rational choice, for reasons which by now should be plain.

A buyer must also know X, R and A(b) if the seller disclaims, thus shifting the risk of nonconformity to him. The buyer in such a case will be able to compare his own avoidance cost, A(b), with the risk's cost, R, but he will not know X. Theoretically, however, buyers can ask sellers to bear these risks, in which case sellers will quote X, which will then be known. Indeed, there should be a submarket in risk-bearing. Thus, whether sellers disclaim or not, buyers can make rational decisions if they know their own avoidance costs, the prices sellers charge for bearing risks of nonconformity and the value of those risks.

In the real world, the process by which buyers undertake to estimate avoidance and risk costs is exceedingly complex. Computing avoidance costs requires a knowledge of the product in question: one avoids defects in cars differently than defects in lawn mowers. Valuing R also requires knowledge of the product, to estimate the probability of defects and the costs such defects impose. Many buyers in business know enough about what they buy to be able to compute the cost of avoiding defects, for example the cost of installing safety devices. Similarly, such buyers can predict the likelihood of defects by, say, inspecting relevant samples, and they can also estimate the costs defects cause. Other buyers, however, probably cannot ascertain such information by themselves. For them, rational decisions are possible only if the market produces sufficient information to enable computations of A(b) and R. Often buyers do get approach R or A(s), for under competitive conditions, X equals cost only when cost is defined to include a return for the use of capital.
some information relevant to A(b); many consumer products, for example, contain warnings and directions for use. Also, as buyers use some products frequently, such as soap and shoes, they will know something about the likelihood of failure and its costs.

However, economic theory indicates that markets will often not produce enough information to enable accurate computations of R and A(b). Information is a public good in that consumption does not diminish supply: everyone can use an idea. Therefore, information is unlikely to be produced unless the producers can exclude those who wish to consume without paying. Patent and copyright laws permit only partial exclusion. The author of a book on how to invest wisely can, for example, prevent others from selling the same ideas, but cannot obtain the full value of those ideas since the millionaires he creates pay only the book's sales price. Our economy thus underinvests in information relative to other things. It is not surprising, then, that information about products also presents an exclusion problem: to enable rational choices, data on products characteristics must be made available before purchase, where it may be consumed by all potential buyers, some of whom may decide to purchase a competing item or not to purchase at all. The difficulty of charging all consumers of information, including such freeloaders (or preventing their access to the facts) may often make providing this information cost more than it is worth. Theory thus tells us that sellers are likely to underinvest in product information because other investments will often be more profitable. Impressionistic observations of the


Professor Hirshleifer recently argued that the possibility of making speculative gains from the possession of information may counteract the tendency to underinvest because of incomplete appropriability; one who has information, he claims, about the occurrence of a future event or the utility of a new technology may either sell it for a large sum which will make it public, or take speculative positions on the basis of it and then release it to the public because release makes the speculation profitable. Hirshleifer, The Private and Social Value of Information and the Reward to Inventive Activity, 61 Am. Econ. Rev. 561 (1971). However, the type of information with which we are concerned, as to the probability and kind of defects in products and ways to avoid them, is probably less susceptible to speculative exploitation or resale than other kinds of information; the conventional argument thus applies here.

Professor Posner, however, also argues that the market's tendency to underinvest in information will be counteracted by the incentive sellers have to inform consumers of the defects of their competitors' products since such information allegedly will increase
market, moreover, are consistent with this theory since useful data on product failure and the avoidance of defects seems scarce.\textsuperscript{34}

Some buyers will also have difficulty valuing $X$, the price sellers charge for bearing risks. $X$ will tend to equal $R$ or $A(s)$. Buyers who do not know $R$ and who do not know enough about the product to compute the cost to sellers of avoiding defects cannot make a priori calculations of $X$'s value. They must instead search out that value by obtaining price quotations, reading ads and so forth. These activities also entail costs, in lost leisure time, in missed working time, in gasoline expended on travel, and the like. Buyers must therefore make an additional decision whether to incur search costs so as to ascertain $X$.\textsuperscript{35}

Let us return to the original model, and assume that the seller disclaims. The buyer must then compare the value of the risk with his own avoidance cost and the seller's price for bearing the risk. Also assume that $S$ is the marginal cost of the buyer's search per hour, and equals $5$, $R$ is $10$, and $A(b)$ is $15$. Since perfect price homogeneity is rare,

\textit{sales}. Posner, \textit{Strict Liability: A Comment}, 2 J. Legal Stud. 205, 211 (1973). The costs to sellers of providing such information, though, are likely to exceed the gains. Advertising defects in another's goods, if done by most sellers in a market, may create the view in buyers' minds that the product generally is unreliable. Posner recognizes a variant of this point in respect of safety information, as he realizes that advertising a safety improvement may communicate the hazardous nature of the product. \textit{Id.} But there is no need to limit the observation to safety, for any stress on relative quality may raise the spectre of the absence of quality. In addition, a seller who pursuasively characterizes a specific competitor's goods as inferior must be sure he is right because disparagement is a tort. Frosser, \textit{supra} note 1, § 128, at 915. In this regard, it may often be difficult to get information as to a competitor's goods which is sufficiently reliable to reduce the risk of a lawsuit to an acceptable level. The risk of lowering the product's image to the public plus the risk of lawsuits for erroneous characterizations are therefore often likely to be higher than any gains in sales from demonstrating specific defects in competitor's goods. But this is theory. The fact is that sellers seem seldom to disclose information in the manner Posner suggests. What is common is the institutional ad in which an industry advertises that the products of all of its members are marvelous; what is rare is specific criticism of one product by the maker of another.


there will be a range of prices for bearing R, which can be described as $X(1), X(2), \ldots, X(n)$. The buyer must now decide whether to bear R, avoid it, or begin spending $5 per hour to find a seller who will bear R at the lowest price. To know which choice to make requires the buyer to estimate $X$'s range, so that he can decide whether to search at all, and for how long. If, for example, $X$ ranges between $9.50 and $10.00, a buyer is unlikely to benefit enough by searching for a price on the lower end to make searching worthwhile. If, on the other hand, $X$ ranges from $4.00 to $6.50, a search may be wise. Some buyers, however, will be unable to estimate $X$'s range since they are ignorant of both R and A(s). In that case, not only will they not know $X$, they will not know whether it will be profitable to begin looking for it.

Assume now that the initial seller agrees to bear risks for a price, $X(f)$. The buyer must then know whether to pay $X(f)$ or look further. This again requires him to estimate $X$'s range, so that he can determine whether $X(f)$ is high or low. He must also estimate $X$'s distribution: if, for example, values of $X$ cluster around $X(f)$, it will seldom be worthwhile to search further, whereas, if those values cluster elsewhere or at extremes, it may be worthwhile to search further if $X(f)$ is high. Range and frequency, however, are again functions of R and A(s), and will thus be unknown to many buyers. Buyers who receive one quote for $X$ will therefore not know whether the price is good, nor will they know whether it will be wise to continue searching.

When buyers cannot value R, A(b) and $X$'s range and frequency, the amount of search they do is a function of guesswork, not comparative cost analysis, and the most common guess will be that search seldom is worthwhile. It will seem easier simply to take the disclaimer or the first price charged for bearing risks than to undertake a costly search the outcome of which and need for which are unknown. Theory indicates that markets in which buyers will not search exhibit either widely disparate prices or terms of great similarity. With risks of nonconformity, similarity of terms seems more probable. It is good business for sellers to bear some risks of nonconformity since that indicates confidence in the product and may increase sales. On the other hand, since the costs to buyers of defects varies widely with buyer circumstances, its value is difficult to predict. Sellers should then bear the risks that standard defects may have to be repaired, standard parts replaced and, with low cost items, prices may have to be refunded, for these are relatively simple risks to value. By the same token, sellers should bear no other risks. If uninformed buyers seldom search, contracts in markets where these buyers operate should allocate risks in this way.
The evidence, albeit sketchy, is that they do.\textsuperscript{16} Warranty clauses accompanying the sale of quite different consumer products, for example, contain remarkably similar risk allocations. These clauses shift to buyers risks whose value is high or difficult to compute, such as the risk of refund of the price of a car or of incurring personal injury, while allocating to sellers risks whose value is low and easily predictable, such as the replacement of a standard part within a given time.\textsuperscript{17} Different products, however, have different failure rates, and their failures impose disparate costs; and different buyers are dissimilarly affected by defects. These common, standard clauses, then, do not reflect rational buyer comparisons of the costs of bearing, avoiding or shifting risks; rather, they reflect the lack of information available to many buyers, and the consequent decisions of those buyers not to search in ignorance.\textsuperscript{18}

When buyers are too ignorant to make the requisite cost comparisons, allowing risks to be allocated by bargains makes little sense, since society does not obtain the benefits of private ordering—the opportunity for people to satisfy their wants themselves—which led courts to allow bargains intitially. There is, however, a related information problem, which is whether buyers will absorb additional information if it is made available. Suppose, for example, that sellers are required to disclose $p$, the probability of defects, as a simple percentage (e.g., 1% break in year one), some information as to the consequences of defects (so buyers can compute $R = pC$), information about how buyers can avoid defects (so they can value $A(b)$, and the price charged for bearing $R$). There will be much to read, but for those who want to read it, search costs should be substantially reduced. As it stands now, much of the information that is


\textsuperscript{17} See authorities cited note 16 supra.

\textsuperscript{18} The text discusses only those aspects of buyer behavior in the face of uncertainty which relate to allocations of the risk of nonconformity. For an interesting discussion and empirical survey of how consumer buyers perceive other risk aspects of purchase decisions and inform themselves with respect to them see Grönhaug, \textit{Risk Indicators, Perceived Risk and Consumer's Choice of Information Sources}, 74 \textit{Swedish J. Econ.} 246 (1972).
available to buyers is usually in raw form which is difficult to reduce to order. Law reform, therefore, will permit many buyers to absorb more information about products than they now do. Nevertheless, since the degree of search engaged in is a function of its costs and benefits, buyers who value time spent in purchasing goods less than they value time in other pursuits may continue not to search. For them, permitting bargains may be senseless, unless the state wants to compel search by holding buyers to deals made in ignorance, or is indifferent to the fate of those who prefer other values to rational consumption.

Basically, the choices are clear. When society faces information gaps, it can either attempt to provide buyers with information and induce search, insofar as possible, or it can abandon the policy of protecting bargains and impose risks on sellers. The former choice is preferable, although it has costs, because it protects free buyer choice with respect to where risks should be and what should be done about them. However, which course should be pursued also depends largely on the efficacy of bargains, as contrasted with imposed risk allocations, in achieving the other goals of the courts: avoiding loss concentrations and improving the quality of products.

Avoiding Concentrated Losses

Concentrating the losses of product defects on parties to sales is undesirable. Courts or legislatures therefore should, it would seem, allocate risks of nonconformity to the parties best able to spread these losses. However, if parties are sufficiently informed to make rational decisions about risks, there may be little need for imposed allocations since the market will substantially reduce loss concentrations unaided.

(1) The Market Function

Assume X is the price a seller charges for bearing risks of nonconformity, that Y is the price an insurance company charges for bearing them, that A(b) is the buyer's avoidance cost, and that the buyer knows each of these costs. He will, of course, incur the least expense. Thus if A(b) > X or Y and X or Y > R, B will pay the seller or an insurance company to bear R, depending on the value of X and Y. Either payment will prevent losses from being concentrated on buyers. On the other hand, if

A(b) < X and Y and < R, the buyer will bear R himself. The latter course of action could result in loss concentrations on buyers, but that should seldom occur if avoidance costs are actually incurred, and R is thereby either eliminated or ameliorated. Moreover, because another of the courts' goals is to reduce the costs associated with defective products, judges should prefer buyers to bear R when A(b) < X and Y and < R, for by doing so buyers will incur avoidance costs and reduce defects.

However, when A(b) and A(s) are greater than R, whether losses will be spread will be determined by the buyer's penchant for gambling and the buyer's wealth, not by comparisons between risk and avoidance costs. Consider two buyers of a product whose risk value is $7.50, where X is also $7.50. If the first buyer likes to gamble, while the second has a compulsive desire for security, the first will bear R, the second will pay X. Also, bearing R involves no expenditure of money, unless the product becomes defective. Shifting R, however, always involves an immediate expenditure since the buyer must pay X or Y. Buyers who are rich and can easily absorb the cost of defects may save the payout and gamble on bearing the risk. Buyers who are poor and have many claims on their income may rank insurance against product failure lower in priority than other things, such as clothing, and thus they may also gamble by bearing R. Buyers in between will, as was said, bear R or shift it depending on their penchant for gambling.

The situation of the rich self insurer is not very interesting, as most of us care little about him, but the case of the poor buyer compelled to gamble poses an important value choice. The question is whether courts or legislatures should impose risks on those who sell to the poor because otherwise some poor buyers who have gambled may be wiped out by defects. I suggest these risk impositions should not be made. Imposing risks on those who sell to the poor will not make the poor any richer; it will only compel them to allocate their resources not as they see fit, but as outsiders think is best for them. Until it is proved, which it so far has not been, that outsiders can make better choices than the parties involved, respect for individual choice compels the conclusion that the role of outsiders should be to increase the poor's resources, not limit their options.

20. The question whether to bear R or shift it does not turn on the likelihood of defects. Let product one have a probability of defects of .75 and a defect cost of $10; R = $7.50 (R = pC). Let product two have a probability of defects of .075 and a defect cost of $100; R = $7.50. In case one, the probability of defects is ten times as great as in case two, but the price of insuring against defects in relation to the costs of unshifted losses is also ten times as high ($7.50 is 75% of $10; $7.50 is 7.5% of $100). Thus, the buyer of product one will be as likely to insure as the buyer of product two, unless, as indicated above, he is more or less of a gambler or the wealth of the two is disparate.

If, in sum, there were adequate information, bargains will do much to prevent the concentration of product losses. Allowing people to bargain, however, is to allow them to gamble. Thus, the principle issue which the goal of preventing loss concentrations poses is whether the state should impose risks or allow gambles. Before confronting this problem, however, an analysis of the effect of information gaps on the pursuit of this goal is necessary.

(2) The Information Problem

A lack of information is relevant in three ways. First, a buyer may bear $R$ but erroneously believes that $R < A(b)$, in which case he will take no steps to eliminate or decrease $R$. Such inaction may result in avoidable losses being concentrated on him. Second, some buyers who accept the standard seller provisions for allocating risks rather than searching for better terms would in fact shift risks if they knew the costs involved. Returning to the model used above, assume that $R$ is $10$, $A(b)$ is $12$, and $X$ ranges from $5$ to $6.10$ but clusters around $5.80$. Also assume that $S$ is $5$ (per hour), and that the buyer could absorb this information and find a seller who would take $R$ for $5.85$ in forty minutes. In this case, the buyer will shift $R$ since the cost of a shift is $9.18$, which, of course, is lower than $10$. If, however, the buyer does not possess the information to value $R$, $A(b)$ or $X$'s range, he faces the possibility of searching for hours with unpredictable gains, but all too predictable costs. He is more likely to bear the risk. A third problem is that the relevant data, when available, is in raw form, making search unduly costly and deterring many buyers from searching at all.

These problems may be resolved by providing information relevant to risk and avoidance costs, by reducing search costs, insofar as that is possible, and then allowing the parties to shift risks through bargains. Some buyers, however, may refuse to absorb the information, and for them nothing will change. Alternatively, we could, by case or statute, impose $R$ on sellers, thereby compelling all buyers to "insure." This approach is undesirable for three reasons. First, since providing information in concise form may substantially reduce search costs, buyers may in fact absorb much of it, and shift risks, when the relevant costs so indicate, more frequently than they now do. Risks should therefore be imposed on sellers only if it is believed that the incidence of irrationally unshifted risks will be too high even with additional information provided. Since this is difficult to know in advance, information should be provided and the results analyzed. Second, imposing risks prevents gambles but reduces freedom of choice, which I take to be a value worth preserving for its own
sake. Third, sellers cannot value certain of R's components, such as the losses resulting to a buyer's business from the failure of a particular part, as well as informed buyers can. If sellers bear risks such as these, they will guess at the correct valuation. When the guesses are too high, buyers will be paying excessive prices for shifting risks; when they are too low, sellers may be underinsured.

Improving Product Quality

The goal of improving product quality has been a part of sales law since at least 1829, when Chief Justice Best explained a decision to impose an implied warranty of fitness on a copper manufacturer as compelled by the court's "duty . . . to make it the interest of manufacturers and those who sell, to furnish the best article that can be supplied." In recent years the goal has been rephrased to provide that courts should hold liable the party who can best (i.e., most cheaply) reduce the costs of defects. No matter how the goal is phrased, however, it is misguided in bargaining situations, where courts can only achieve what economists refer to as optimality: that level of consumer sovereignty where no buyer can be made better off by further market transactions without making another buyer worse off.

Imposing risks on a party will not, of itself, cause that party to do things differently if risks could be completely shifted, for then change is pointless. Risks, however, cannot be completely shifted. Should a seller raise prices by the risk's value he will lose sales. Sellers must therefore decide whether the loss of profit from raising the price by R is greater or less than the loss caused by avoiding or ameliorating that risk. For example, let P be the price, exclusive of risk costs, and R the risk cost. If the seller disclaims, thereby shifting R to buyers, buyers face a cost of P + R; if the seller does not disclaim, and instead charges R's value for bearing it,
buyers again face a cost of $P + R$. Whether sellers will avoid risks is determined by whether $P + R > P + A(s)$; that is, whether avoidance cost is cheaper than risk cost. Sellers therefore face the same incentive to avoid defects whether they disclaim or not, for in either case buyers will perceive the total cost as $P + R$, and thus force sellers to compare risk and avoidance costs.

The point is that when buyers can correctly value the risk, nothing is to be gained by shifting that risk to sellers. When buyers cannot value the risk, a shift will not necessarily yield improved products. Assume, for example, that the seller disclaims, that $A(s)$ is $8$, $R$ is $5$, and that many buyers perceive $R$ as $9$. Such buyers will be responding to artificially high prices; hence they will purchase less, thereby possibly inducing the seller to avoid defects. If a court bans the disclaimer, the seller (who presumably can value $R$) will raise price by $5$ rather than avoid defects. If this is done, those buyers who overvalued $R$ will perceive a cost reduction of $4$, with the result that purchases will increase and there will be more defective products than before judicial intervention. By the same token, when buyers undervalue risks, sellers who disclaim feel artificially low pressure to do things differently. In that case, banning the disclaimer will then force a price of $P + R$ or $P + A(s)$, either of which will be perceived by buyers who have undervalued $R$ as higher than the costs they previously faced. Matters will then be better since less will be bought, and what is bought may be better made.

It is therefore misleading, in bargaining situations, to speak of improving product quality or of finding the cheapest cost avoider. The initial inquiry should be whether buyers are informed; if they are, nothing further can be achieved by shifting risks between them. If buyers are uninformed, shifting risks to sellers may enable buyers only to perceive an accurate valuation of $X$, but buyers need to know much more than this. When, moreover, buyers are informed, they will determine by their purchase decisions the amount and kind of defective goods produced; for if they want defective goods, they will buy them. Informed choices, then, produce optimality, i.e., the state in which the production mix accurately reflects buyer wants. Private law should therefore seek an optimal number of defects, not "better" products.

This somewhat technical analysis may be made clearer by considering in greater detail how risk allocations affect quality. The point to be kept in mind is that optimality and whatever improvement in product

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26. Buyer overvaluations may therefore be unusual, since it will be in the interest of sellers to inform buyers by providing information or bearing $R$ and pricing it accurately. However, it may be difficult for sellers to know whether buyers are overvaluing risks; the case the text describes may thus be more common than theory indicates.
quality it brings can be achieved by bargains if buyers are informed. The relevant inquiries remain the same—do buyers have information, and, if not, what should be done to inform them?

(1) The Market Function

Using the model established earlier, assume that a product can profitably sell for $10, not including risk costs of $5. If the seller bears the risk, his price will be $15, and he will produce the number of defective products a $15 price calls forth. If buyers bear the risk, they will face a cost of $15—$10 for the price, $5 for bearing the risk, and we will again have the output a $15 price produces. Optimality, then, is not affected by risk allocation.

The ability of the market to reach optimality is also unaffected by the parties' avoidance costs. If they are equal, and lower than R, whoever bears R will choose to incur avoidance costs, but so long as they are equal, output will remain the same no matter where R is put. If they are unequal, however, the parties will allocate R to the party whose avoidance costs are lowest through bargains; and that, of course, will improve product quality, since the lower these costs are, the more likely they are to be incurred. In our example, if A(s) is $2 and A(b) $4, a buyer who bears R faces a $14 cost. The seller can increase output, and thus profits, by bearing R for that reduces buyer costs to $12. Sellers, then, will bear R when A(s) < A(b) and also less than R. In competitive markets, therefore, optimality will be reached without the law's aid.  

27. Even in noncompetitive markets, the law also should be unconcerned with the risk allocations the parties reach, for similar reasons. See text accompanying notes 80-86 infra.

It should be noted that the process which allocates risks to the party whose avoidance costs are lowest works less precisely than the above hypothetical indicates because actual buyer avoidance costs sometimes vary. Assume, for example, that avoidance costs are the sum of materials and labor. Sellers must be able to compare A(b) with A(s), which means they must be able to know the prices and amount of material and labor that buyers will require in order to avoid defects. Material should be comparatively easy to value since sellers probably know what materials can be used to avoid defects—a safety clip or a face guard for example. Labor, however, is difficult to value for two reasons. First, some buyers will take longer to install safety devices than others. This should not be a major problem since sellers can probably predict a mean, although these computations will be inexact. More seriously, labor cost can be hard to determine in the case of individual proprietors or consumers who do not purchase labor at market rates. Buyer Smith values an hour of his time (to install a safety device) as worth $5; buyer Jones values his time as worth $8; A(b) (Smith) < A(b) (Jones). Thus, the comparison between A(s) and A(b) will be difficult for sellers to make. Individual buyers could, of course, disclose their own valuations, but this is an unlikely solution since bargaining seems more infrequent when individuals are involved than in other cases.

I suggest, however, that this difficulty does not vitiate the analysis. It seems intuitively probable that individual valuations of time will cluster around a rough mean since they are partly a function of income and proclivity for safety, neither of which are randomly distributed. An estimate of buyer avoidance costs may, therefore, not be too
The import of all of this can best be perceived by applying it to some common problems. It has been suggested that R should be imposed on sellers when their insurance costs are lower than those of their buyers because this will reduce the total cost of defective products. Differential insurance costs, however, reflect the same phenomenon as differential avoidance costs: if Y, the insurance premium, is lower for sellers than buyers, sellers will bear R, pay Y and reduce X by the difference between the two insurance charges because doing this enables them to give to buyers a costless price reduction. Differential insurance costs thus afford no reason to allocate risks to particular parties.

Risks, it has frequently been said, should also be imposed on sellers because this will stimulate research into making products safer. Such research, however, will, or will not, occur wherever R is initially placed. If R is $5, A(s) is $8, A(b) is $9 and the price absent risk costs is $10 the seller will, if he bears R, charge $15; buyers will, if they bear R, face a $15 cost. If we put R on the seller, he may do research to reduce A(s) to below $5 since people often attempt to lower costs. The spur to such research, however, is the chance to increase output by a price reduction; it is the feeling that $15 may be too high for many buyers. If, however, the risk is placed on buyers, the seller faces the same spur, for his buyers are reacting to what is, in effect, a $15 price. There is no assurance, of course, that market pressures will induce research; the point, rather, is that those pressures will be felt wherever R is initially put. A desire to stimulate research into product improvement thus does not imply imposing risks on sellers.

Courts, moreover, often misunderstand the contribution the market can make toward achieving optimality, and thus wrongly intervene in far off. Moreover, there will be a tendency for sellers to correct errors: overvaluing A(b) may cause sellers to bear risks buyers would take, which should not be done for long; undervaluing—putting it as less than A(s) and thus disclaiming—will make the product too costly for buyers, who will then bear risks they cannot avoid. The market exerts pressure to reduce such costs to buyers. Nevertheless, it is more accurate to say that in markets with individual buyers, sellers will only tend to bear risks they can avoid more cheaply than buyers can. Even so, the issue is not whether market solutions are perfect but whether they are better than others; it seems probable that even with the rough estimates which must be made, markets will come closer than public interventions to providing what buyers want regarding risk bearing, since sellers have the expertise and incentive to make better guesses at such things as buyer avoidance costs than administrators or legislators.

28. CA LA B R E S I , supra note 19, at 164; Franklin, When Worlds Collide: Liability Theories and Disclaimers in Defective Products Cases, 18 STAN. L. REV. 974, 1006 (1966) [hereinafter cited as Franklin].
private transactions. An example of this involves a line of cases striking down short contractual limitations of time in which to bring warranty claims. In *Wilson Trading Corp. v. David Ferguson, Ltd.*, for example, the contract provided that no claims "relating to . . . shade shall be allowed if made after weaving, knitting, or processing, or more than 10 days after receipt of shipment." The yarn in question "shaded," i.e., varied in color from piece to piece after processing. The court held that if the defect in the yarn could only be discovered after processing, the time limitation was made unenforceable by § 2-719(2) of the *Uniform Commercial Code*, which bans a limitation on remedies that "circumstances" cause "to fail of its essential purpose. . . ." The court felt that this contract clause would result in the elimination of . . . all remedy for defects not discoverable before knitting and processing. . . ." Yarn, however, can apparently shade because it is defectively manufactured or badly processed. If sellers bore the risk of poor processing, their avoidance costs would be quite high for they would have to do such things as educate processors or station observers in their factories. Buyers, on the other hand, can avoid losses by merely processing carefully. In short, A(s) is probably higher than A(b). Where that occurs, and the parties are knowledgeable, R is often on buyers; unsurprisingly the clause at issue seems standard in the highly competitive garment industry. Moreover, knowledgeable buyers, such as the defendant sweater manufacturer, probably understand its consequences. The risk allocation struck down in *Wilson Trading*, then, may have been optimal, and the line of cases it epitomizes was thus questionably decided.

When people bargain the market will thus reach optimal solutions, providing that level of defective products people want, without the law's aid. The goal of improving product quality through risk allocations requires no action by the state. Such inaction, however, assumes that buyers are informed, and some may not be.

31. *Id.* at 401, 244 N.E.2d at 686, 297 N.Y.S.2d at 110 (emphasis omitted).
32. The full subsection reads: "Where circumstances cause an exclusive or limited remedy to fail of its essential purpose, remedy may be had as provided in this Act." *Uniform Commercial Code* § 2-719(2).
33. 23 N.Y.2d at 404; 244 N.E.2d at 688; 297 N.Y.S.2d at 113.
(2) The Information Problem

A lack of information is relevant to the goal of achieving optimality in several ways. Initially, buyers may know X but misvalue A(b). Should they erroneously perceive it as higher than X, they will perceive a higher cost for the product than in fact exists. It will be remembered that cost = price + X or A(b). If the price is $10, A(b) is $3, and X is $4, but A(b) is perceived as $5, then buyers will believe the cost to them to be $14, when in fact it is $13. They will therefore purchase less of the product than they in fact want, thus creating a nonoptimal situation. Conversely, if A(b) is wrongly perceived as lower than X, buyers will purchase too much, thereby increasing the number of defective items beyond buyer desire for them, and artificially reducing the pressure on sellers to incur avoidance costs. Next, remember that many buyers will refuse to search in ignorance; they thus perceive themselves as facing a take it or leave it choice, between agreeing to the risk allocations sellers make or not buying. A factor relevant to this decision is the value of R; if it is high, the product is more expensive than if it is low. When buyers cannot value R, therefore, they will often perceive a distorted price for the product, either too high or too low. The results of such distortions will be the same as those when A (b) is misvalued but X known, i.e., overvaluation unduly dampens production and undervaluation unduly increases it, thereby increasing the defects it yields. In addition, if a buyer decides to buy and bear R, defects will still be avoided if A(b) < R since it is rational, for example, to spend $5 to avoid a $7 risk; but if buyers are ignorant of A(b), they may believe it to be higher than R when it is not and thus take no avoidance action. Finally, costs of searching for information are high, often deterring buyers from undertaking a search.

These difficulties may be resolved by providing buyers with information and reducing search costs, or by imposing risks on sellers, which will force buyers to react to their cost. Such risk impositions, however, will themselves produce misallocations. When A(b) is less than A(s) and also less than R, the cost is lowest if buyers bear risks; imposing risks on

35. Some commentators claim that individual buyers undervalue the risks they face. Calabresi, supra note 19, at 91, 163-64; Franklin, Tort Liability for Hepatitis: An Analysis and a Proposal, 24 Stan. L. Rev. 439, 469 (1972). In fact, there is insufficient evidence to ascertain what buyers do. See Posner, Book Review, 37 U. Chi. L. Rev. 636 (1970). Franklin makes reference to psychological studies in support of the claim, Franklin, supra at 469 n. 179, but those studies apparently indicate only that people deduce less from data than the data permits, not that people are risk takers. However, when buyers lack information, they will probably overvalue or undervalue R; since overvaluations dampen output more than free choice prefers, and undervaluations increase defects unduly, the case for filling information gaps does not turn on the direction in which buyers mistake the facts.
sellers and prohibiting contracting out unnecessarily raises the cost of the product, thereby yielding a nonoptimal solution. Of even greater significance are the misallocations that the consequential damage problem causes.

For our purposes, consequential damages are those in excess of the value (price) of the item, such as lost profits or personal injuries.36 Again returning to the model used above, let us assume that a defect renders a product worthless, and that \( P = \text{price} \), \( p = \text{probability of defects} \), and \( CD = \text{consequential damages} \). Thus \( R = pP + pCD \). Consequential damages, however, vary from buyer to buyer—a defect which interrupts a production flow will cause more harm in one business than another; a defect that causes a buyer to miss work costs an executive more money than a clerk. The risk of nonconformity is thus different for each buyer: \( R_1 = pP + pCD_1 \); \( R_2 = pP + pCD_2 \). Because consequential damages vary among buyers, sellers will often be unable to value them accurately. To see the results of this, assume \( P = $100 \), \( p = .01 \), \( A(s) = $1.60 \) and \( A(b) = $2.10 \). Our universe is six buyers.

<table>
<thead>
<tr>
<th>Buyer #</th>
<th>CD (expected consequential damages)</th>
<th>Risk Cost (pP + pCD) = $1.00 + .01CD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer #1</td>
<td>$20</td>
<td>$1.20</td>
</tr>
<tr>
<td>Buyer #2</td>
<td>$30</td>
<td>$1.30</td>
</tr>
<tr>
<td>Buyer #3</td>
<td>$40</td>
<td>$1.40</td>
</tr>
<tr>
<td>Buyer #4</td>
<td>$70</td>
<td>$1.70</td>
</tr>
<tr>
<td>Buyer #5</td>
<td>$80</td>
<td>$1.80</td>
</tr>
<tr>
<td>Buyer #6</td>
<td>$90</td>
<td>$1.90</td>
</tr>
</tbody>
</table>

Buyers one, two and three may pay the seller the value of the risk to bear it, but will not pay him to avoid it since for them while \( A(s) \) is less than \( A(b) \), it is greater than \( R \); buyers four, five and six would pay the seller to bear the risk since for them \( A(s) \) is less than \( A(b) \) and less than \( R \); in these latter cases, the seller would avoid the risk as well. It is, however, expensive to charge each buyer a separate price. The seller may then have at least two prices for bearing \( R \)—$1.00 to replace or refund if the item is defective and $1.60 to bear all risks. Buyers four through six would pay $1.60; buyers one through three would pay $1, and may then

36. More technically, consequential damages comprehend injury to person or property from warranty breaches, and losses "resulting from general or particular requirements and needs [of the buyer] of which the seller at the time of contracting had reason to know. . . ." Uniform Commercial Code §§ 2-715(2) (a), (b).

37. This equation is not completely accurate because the probability that a product will be defective and the probability that defects will cause consequential damages, such as personal injury losses, may differ. For example, eyeglasses merely break much more frequently than they injure eyes when they do break. The text's use of only one probability figure \( (p = .01) \) is made for simplicity.
try to negotiate a separate insurance arrangement. For them, it may be that the seller will subcategorize between $1.00 and $1.60 by, say, agreeing to bear all risks for $1.30 (that is, he will pay up to $130 if the goods are defective).\textsuperscript{38}

Assume, now, that the seller is required to bear all risks with contracting out prohibited. For each buyer $R = pP + pCD$. The seller, however, is ignorant of CD's value. He knows that he must charge more than $1.00 to bear $R$, but does not know how much more, or whether he should avoid defects or not. $R$ will in consequence be arbitrarily priced, and decisions to avoid it arbitrarily taken. Setting $R$ at $1.75$ in our illustration, for example, will result in no defects but will be wastefully high, since in some cases more money is being spent to avoid a risk than the risk is worth. By setting it at $1.55$, on the other hand, defects are not avoided, and sellers are underinsured. Imposing the entire risk of nonconformity on sellers therefore assures resource misallocations.

No one now knows whether the misallocations attributable to seller ignorance of one of $R$'s components, together with the misallocations caused by imposing $R$ on sellers when $A(b) < A(s)$ and $R$, outweigh the misallocations which result from buyer ignorance. There is, however, a choice between evils. While allowing buyers to bear risks produces inefficiencies, so also does imposing risks on sellers. This choice can be avoided if the parties are allowed to bargain and buyers are provided with information; they can then take information as to the probability and nature of defects and value all of $R$'s components, including those personal to them, when deciding whether to bear or shift risks.\textsuperscript{39}

\textsuperscript{38} For some products it will be excessively costly to make a certain portion of output less defective than the rest since their economies turn on making everything the same way. This fact, together with seller inability to value CD and buyer ignorance (and refusal to search in ignorance), cause many sellers to have only one price, $pP$ or $\$1.00$ in the text's hypothetical, and to shift $pCD$, those damages in excess of price, to buyers. \textit{See} note 16 \textit{supra} & text accompanying notes 8, 16-18 \textit{supra}. Theoretically, sellers could ascertain each buyer's circumstances so as to predict what consequential damages each buyer would suffer, but the costs of doing that would be prohibitive. Additional evidence confirming the conclusion that sellers ordinarily shift consequential damage risks is found in the fact that only a handful of cases under the Code litigate these damages, exclusive of cases in which an attempted shift of them to the buyer has been stricken.

\textsuperscript{39} Professor Calabresi argues that if market solutions are chosen, risks should be imposed on sellers when the buyers are individuals. \textsc{Calabresi, supra} note 19, at 161-73. The principal reason is that, as to personal injuries, "it will be virtually impossible, for psychological reasons, adequately to inform individuals of the risk so that they can properly evaluate it—they will simply refuse to believe it." \textit{Id.} at 222 n. 18. \textit{See also} \textit{id.} at 163. No evidence is adduced in support of the claim that people cannot bargain about the risk that they will be injured or die, nor is it intuitively obvious. People who purchase life and accident insurance bargain over precisely these things. I do not claim that Professor Calabresi is wrong, only that there is little reason now to assume that people

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The three goals courts have pursued in connection with allocating risks of nonconformity are to enforce the parties' bargains, to reduce concentrated losses and to improve product quality. These goals, however, are in essence three facets of one ultimate aim, to let the parties do as they wish. Buyers left free to choose will shift risks to sellers or others whenever it is less costly to do that than it is to bear risks or avoid them, thereby reducing loss concentrations; and buyers will also purchase so as to call forth an optimal number of defective goods, which is all private law can aspire to in the improvement of product quality. Pursuing freedom, which is an end in itself, therefore also entails pursuing utility. None of these goals should be pursued, however, when buyers are too uninformed to value the risks they face, the costs necessary to avoid those risks and the price sellers charge for bearing them. It is thus pointless to allow bargains on the premise that individuals can satisfy their wants better themselves than outsiders can for them when those individuals cannot know which risk allocations in fact will realize their wants. Nor, as we have seen, will risks be rationally shifted or optimality achieved when buyers cannot make the necessary cost comparisons. Although the evidence is sketchy, it appears that in many markets buyers are insufficiently informed to make pursuit of the courts' aims through bargains a wise approach.40

Society can continue to rely on bargains, but it must provide buyers with the information necessary to value costs, and reduce search costs insofar as possible. The alternative is to impose risks on sellers. I have argued for the former solution on four grounds. First, bargains are preferable because they maximize an individual's choice in making purchase decisions. Second, providing buyers with information interferes less with this choice than imposing risks; it is thus to be preferred unless bargains cannot take appropriate steps when informed of the risk of their own harm; thus policy should not be based on Professor Calabresi's claim.  

40. Note 10 supra, stated that R's value ordinarily is unchanged whether it is borne by buyers or sellers. R will vary, however, if one of its components is repair cost and one party can repair more cheaply than the other. Concretely, let there be a 1% chance of a repairable defect in year one; let the average repair cost to buyers be $50; let the average repair cost to sellers be $40, because, say, they get reduced rates from mechanics for volume purchases of repair services. As R=PC, and as C seller < C buyer, the repair risk will be lower if borne by sellers than if borne by buyers. The possibility of R varying with its location, however, does not change the analysis made above. Differential risk costs are indistinguishable from differential avoidance costs. Assume that A(b) and A(s) > R, so that neither party will avoid R. If R seller < R buyer, the seller will bear R, for the same reasons he will bear R if avoidance costs are low enough to be relevant and A(s)<A(b). The text assumes an invariant risk cost to facilitate analysis. Finally, the process whereby sellers will bear R, if R is lower when on them than when on buyers, also presupposes informed buyers.
will continue to yield too many unshifted losses after information is provided. Since it is difficult to know in advance whether this will happen, information should be made available and the results checked. Third, providing information will enable more accurate prices for risk shifting, thereby preventing insufficient or excessive insurance charges. Fourth, which is a facet of the third, informed bargains can yield less misallocations than risk impositions. All of this, however, ignores two difficult problems, the costs of reform and the value aspects of the costs of search. The first is discussed here, the second in the following section.

I have throughout been dealing with a model of a product that has one moving part, and which will be defective only if that part breaks. Products, however, are often more complex than this. A television set can be defective if the fine tuner breaks, or the vertical hold goes or the picture tube fails. The probability of a defect is the sum of the probabilities of each of these, and the cost of a defect is the sum of the costs of each of these; symbolically, \( R = r_1 + r_2 + r_3 + \ldots \). With respect to some products, the various probabilities can be summed, and a single figure for \( R \) given without seriously misleading buyers; but when we consider something like a car, the statement that there is a 2% chance that "the car" will be defective begins to seem meaningless. The probability of defects and the costs defects impose will vary so widely among the different parts that buyers do not need one probability figure but several, not one lesson on how to avoid defects but possibly many. This raises a number of difficulties. How, and by whom, is it to be decided which products can be accurately characterized by unitary values for \( R \) and \( X \) and a single description of cost avoidance methods? For the products which cannot, how much particularity is there to be? Some of the information which seems necessary, sellers themselves may not know. How is this information to be discovered? For some products a precise probability may be impossible to calculate. How close must an approximation be? In what form must information be disclosed? In some circumstances, such as sales from vending machines, providing pre-sale information may be impossible. Who is to decide when these circumstances exist, and what then should be done? Although this article does not answer these ques-

41. In addition, Professors Demsetz and Buchanan show that imposing risks on one set of parties to contracts, such as sellers or employers, makes poorer those other parties to the contracts who prefer disposable income to insuring against risks, or who prefer to insure with others than their contract partners. Buchanan, supra note 21; Demsetz, Wealth Distribution and the Ownership of Rights, 1 J. Legal Stud. 223 (1972).

42. The text's inquiries may be stated more fully. Should sellers, for example, be required to produce and disclose information at their own expense? Should the government produce information, as in the case of agricultural grading, see The Agricultural Marketing Act of 1946, 7 U.S.C. §§ 1621, 1622 (1970), and require sellers to disclose it? Should sellers provide information to the government to be disseminated to the pub-
tions, one fact can be noted: a serious effort to provide information will impose substantial costs, to know what information is important, to get it and to ensure accurate disclosure.

Whether to impose risks or provide information partly turns on comparison between the cost of risk impositions as opposed to the cost of providing information, and between the gains which bargains yield as opposed to the gains from imposing risks. These comparisons today cannot be made precisely; reformers can only guess. However, courts, which are presently imposing risks, are also guessing. I suggest the opposite guesses should be made for the reasons previously given. This concededly is a position which cannot be argued with excessive force in the absence of evidence, but what can confidently be asserted is that the facts should be sought before courts commit themselves to imposing risks when consumers are involved, or not doing so when businessmen deal with one another, or adopt compromise solutions without principle.

Search Costs, Value Choices and the Question Whether to Impose Risks

I previously assumed all buyers to face the same search costs, but these costs in fact differ because buyers value their time differently. With individual buyers, search costs are partly a function of the value put on leisure; many people shop when they would otherwise be engaging in recreation or family life. Search costs are thus much higher for a person who loves golf than for one who loves bargains; providing information will then be of more use to, and will more likely be absorbed by, bargain hunters. Should search costs be substantially reduced, by capsuling the relevant information, they will therefore remain high enough to preclude search by some buyers for whom a significant element of search costs is foregone leisure. Given American tastes and the amount of information as is done with some safety information under the Consumer Product Safety Act § 5(a) (1), 15 U.S.C.A. § 2054(a)(1) (Supp. 1973), Pub. L. No. 92-573, § 5(a)(1), 86 Stat. 1211 (1972)? Should the government develop information itself and communicate it to consumers, as will be done with certain information as to automobile safety and reliability by the Motor Vehicle Information and Cost Savings Act § 201, 15 U.S.C.A. § 1941 (Supp. 1973), Pub. L. No. 92-513, § 201, 86 Stat. 956 (1972)? What is essential to be disclosed is the probability (p) of defects together with some information as to their form, the costs they are likely to produce and the methods of avoiding them. If information is to come from sellers, how is the transmission to be policed, and by whom? How can search costs best be reduced? It also seems likely that whichever choices are made some administrative presence will be required, to provide information or to police its provision. For a thoughtful discussion of some of these issues, though not concerned with the communication of information respecting risks of nonconformity but rather the problem of how any sales information can be effectively communicated to buyers, see Whitford, The Functions of Disclosure Regulation in Consumer Transactions, 1973 Wis. L. Rev. 400, 439-63.
which must be absorbed, there may be many such buyers. What then
should be done about it?

This is not a question to which there is a logical answer. A market
economy necessarily presupposes that buyers will participate in the con-
sumption game, and that must imply some indifference to the fate of non-
participants. Such indifference, moreover, raises the cost of nonparticipa-
tion and may reduce it. The argument that some buyers will not absorb
information, therefore, is an insufficient response to the suggestion that
information be provided. The real issue is whether the consequences to
obdurate nonparticipants will be so enormous and unpleasant as to out-
weigh the gains which market solutions yield. This cannot be known
exactly; indeed it is one of those questions the answers to which are deter-
mined as much by the values of the person asking as by the methods used
to find answers. Thus, a man may bear heavy accident costs because he
failed to search for a contract which shifted risks to sellers. To one per-
son, his suffering is the regrettable but deserved consequence of sloth, and
a useful lesson to others; to a second person, all remediable suffering
should be eliminated, even if it means that people must be protected against
their own weaknesses. To the extent that analysis is relevant to this issue,
my thesis is that bargains provide substantial benefits. Moreover, there
will be fewer nonparticipants after information is provided than there now
are because nonparticipating will be more costly than it is today and in-
formation will be easier to get. We should, therefore, ascertain how much
suffering a new solution will produce rather than abandon it untried.42

The Problem of Neutrally Enforcing Bargains

Allowing private parties to allocate risks of nonconformity implies
state neutrality to the allocations reached—freedom means freedom. Reducing
loss concentrations on buyers and improving product quality
through bargains also implies state neutrality with respect to the bargains
struck, because the parties' pursuit of self-interest in negotiations achieves
these results. At present, however, although private law ostensibly per-

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42. A third choice, instead of imposing risks or providing information, is to let
bargains be made in ignorance—to do nothing. I reject this for two reasons. First,
things are now being done, by judicial risk impositions and public regulation of quality,
see note 8 supra, and the movement seems unstoppable. Second, doing nothing is the
worst choice because the gains from risk impositions, although it is the second best solu-
tion, are likely to exceed the costs of making them.

Providing information, finally, need not be an all or nothing solution. Consider a
case where seller and buyer avoidance costs exceed risk costs, R = $1, and the cost of
providing information in the requisite detail is $3 per unit. Here, ignorance is cheaper
than knowledge and may sensibly be preferred. The administrative presence referred to
in note 42 supra perhaps should be authorized to exempt sellers in such cases from pro-
viding information or to reduce the amount which must be disclosed.
LAW TREATMENT OF DEFECTIVE PRODUCTS 33

mits bargains, they are often not neutrally enforced. It is instructive to see why.

(1) The Problem

The contract often explicitly allocates risks between the parties. Courts, however, frequently refuse to take the contract at face value when a risk allocated to the buyer has materialized into a loss. This tendency is illustrated by cases concerning disclaimers of warranty liability. The Uniform Commercial Code regulates the form of such disclaimers and in some cases their content. The significant point for present purposes is that the statute treats all buyers alike. If a disclaimer of the warranty of merchantability is in proper form, it is enforceable, whatever the market status of the buyer. Nevertheless, cases under the Code reveal a sharp contrast in the treatment of buyers who seem knowledgeable about the products they buy or about business practices accompanying sales, and buyers who seem ignorant of both. Greater duties of reading and understanding contract terms are imposed on the former than on the latter. For example, in twenty-two cases involving knowledgeable buyers, exculpatory clauses were enforced seventeen times, although some of them did not appear conspicuous or were on the back of forms. Yet in forty cases involving arguably ignorant buyers, such as a consumer or a small businessman, exculpatory clauses were enforced but seven times.

44. See Uniform Commercial Code §§ 2-316, -719.
46. The survey this paragraph reports is based on the warranty cases in 1 to 8 Uniform Commercial Code Reporter; later authority is consistent with it. Knowledgeable buyers are primarily business purchasers obtaining products under circumstances which should make them familiar with their use—for example, a chemical manufacturer purchasing a reactor according to specifications it supplied. See, e.g., Southwest Forest Indus., Inc. v. Westinghouse Elec. Corp., 422 F.2d 1013 (9th Cir. 1970); Wyatt Indus., Inc. v. Publicker Elec. Corp., 420 F.2d 454 (5th Cir. 1969); Construction Aggregates Corp. v. Hewitt-Robins, Inc., 404 F.2d 505 (7th Cir. 1968); K & C, Inc. v. Westinghouse Elec. Corp., 437 Pa. 303, 263 A.2d 390 (1970).
47. Moreover, seven of these cases involved used goods, where buyers presumably expect to bear greater risks; sellers won four of these cases. Thus when a buyer was perceived as inexpert, and bought new goods, exculpatory clauses were not enforced in thirty of thirty-three cases. These figures as to the ineffectiveness of disclaimers when...
An analysis of some of the cases gives a better idea of what the courts are doing. Section 2-316(2) of the Code provides that "... to exclude or modify the implied warranty of merchantability or any part of it the language must mention merchantability and in case of a writing must be conspicuous." Section 1-201(10) defines a conspicuous term as being "... so written that a reasonable person against whom it is to operate ought to have noticed it," and goes on to say, "Language in the body of a form is 'conspicuous' if it is in larger or other contrasting type or color." In Hunt v. Perkins Machinery Co., the plaintiff purchased a diesel engine for his fishing boat. The sales contract was a one page form. "In the center of the face of the order in bold face type capitals" was the statement that the order was subject to "TERMS AND CONDITIONS STATED" in it; on the back, at the top, in the same type was the heading "TERMS AND CONDITIONS;" and in the third paragraph on that reverse side was a disclaimer of the merchantability warranty which satisfied the Code's requirements as to phraseology. Plaintiff, however, "did not read anything on the back of the order when he signed it." The court noted that the contract was annexed to a pad of order forms and held:

[T]he provisions on the front of the purchase order did not make adequate reference to the provisions on the back of the order to draw attention to the latter. Hence the provisions on the back of the order cannot be said to be conspicuous although printed in an adequate size and style of type. The disclaimer was not effective. That a commercial fisherman may, or ought to, have been aware that contracts are often printed on both sides of a page was not discussed.

In Minikes v. Admiral Corp., plaintiff complained of a defective refrigerator. The purchase order recited, "in larger type" than the rest of the form, that "All orders are subject to the following:" Immediately

"ignorant" buyers purchase new goods are consistent with Professor Whitford's study of automobile litigation, although his data included pre-Code cases and cases in which negligence was alleged. Whitford, Strict Products Liability and the Automobile Industry: Much Ado About Nothing, 1968 Wis. L. Rev. 83, 104-06, 128-32, 134-39 [hereinafter cited as Whitford].

48. UNIFORM COMMERCIAL CODE § 2-316(2).
49. Id. § 1-201(10).
51. Id. at 535, 226 N.E.2d at 229.
52. Id. at 536, 226 N.E.2d at 229.
53. Id. at 541, 226 N.E.2d at 232; accord Massey-Ferguson, Inc. v. Utley, 439 S.W.2d 57 (Ky. 1969). The Kentucky court, however, later partly recanted. See Childers & Venters, Inc. v. Sowards, 460 S.W.2d 343 (Ky. 1970).
thereafter was a disclaimer, in "smaller type than on the rest of the 'purchase order.'" The court observed:

The burden of preparing an effective disclaimer is heavy. It is one of the hazards of the business. Before a merchant can disqualify for the implied warranties the public has become accustomed to, it must show that the customer was clearly placed on notice. It then struck the disclaimer as being inconspicuous because it was "smaller, not larger, than the rest of the purchase order..." The opinion gave no reasons why disclaimers were disfavored other than the partially relevant but unsupported assertion that the public expected the warranty, nor did it acknowledge that the Code permitted disclaimers without imposing special burdens on sellers, nor did it consider that section 1-201(10)'s authorization of disclaimers in "other contrasting type" could include smaller print preceded by a larger print signal.

The object of the judges in these cases is not to find out what the buyer's understanding of the terms in fact was, and to protect it, but to

55. Id. at 1012, 266 N.Y.S.2d at 462.
56. Id.
57. Id. at 1013, 266 N.Y.S.2d at 462.
58. Id. at 1012, 266 N.Y.S.2d at 462.
59. UNIFORM COMMERCIAL CODE § 1-201(10).
60. In a more recent example, this time in a suit between businesses, it was held: Finally, defendant Western Farmers contends the trial court erred in denying its cross-claim for indemnity against defendant Stauffer Chemical Company. The trial court found that Western Farmers, in advising the use of Eptam to the plaintiffs, relied on the information furnished by Stauffer Chemical Company that Eptam was suitable for application to sweet corn in the Moses Lake area. The trial court, however, denied indemnity over against Stauffer Chemical because it found that Western Farmers Association had full knowledge of the disclaimer provisions under which the Eptam was sold to them by Stauffer Chemical Company. Knowledge of a disclaimer is not sufficient to give effect to that disclaimer so as to defeat an action for breach of warranty. A disclaimer to be effective must be bargained for. RCW 62A. 2-316. Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 361 A.2d 69 (1960), Berg v. Stromme, 79 Wash. 2d 184, 484 P.2d 380 (1971). Disclaimers of warranty are disfavored in the law and ineffectual unless explicitly negotiated between the buyer and seller and set forth with particularity showing the particular qualities and characteristics of fitness which are being disclaimed. Berg v. Stromme, supra. In the instant case the alleged disclaimer was not part of the contract between Western Farmers and Stauffer, but was merely a caveat emptor proclamation contained on the label of the container. It was doubtlessly intended for the ultimate user of the product, who might be reasonably expected to suffer damage from its use. When a retailer incurs liability to the ultimate consumer by reason of his negligent reliance upon statements made by the manufacturer of a dangerous product, indemnity will lie. Dobias v. Western Farmers Ass'n, 6 Wash. App. 194, 491 P.2d 1346, 1350 (1971); accord, DeCoria v. Red's Trailer Mart, Inc., 5 Wash. App. 892, 491 P.2d 241 (1971). The Code, however, contains no requirement that disclaimers to be effective must be bargained for.
ascertain what the buyer should have expected the terms to be. Actual understandings are unprotected because they are hard to ascertain, and because they may be aberrational. A buyer, for example, could believe, on no evidence and despite the contract, that a particular risk was on the seller; should that belief be protected, the seller may bear costs which he cannot anticipate. These cases thus construct models as to what terms the normal buyer should expect, rather than hold buyers to the terms actually present. Their constructions, however, are unsatisfactory, because these models are functions of facts and policy, while the opinions discuss only some of the facts and almost none of the policy.

As far as factual questions are concerned, the wording and location of exculpatory clauses are plainly germane. But so also is what sellers ordinarily do. Sellers of new cars, for example, have refused to do more than repair or replace defective parts for over fifty years. A new car buyer who expects his seller to bear the risk of consequential damages thus has an aberrational view of the transaction, which should not be protected unless the circumstances indicate that, on the particular facts, it was plausibly held. Another fact relevant to what buyers should expect is what they normally do expect. If buyers in a given market expect sellers to bear only certain risks, a buyer with a standard contract but a different expectation should be bound by the contract unless other aspects of the deal took it out of the norm. Many cases, however, ignore evidence as to what sellers do and buyers expect, even when the evidence is inconsistent with the results those cases reach.

Thus in some markets it is customary for sellers to shift risks of non-conformity to buyers. Sellers of seeds, adhesives and works of art often shift all such risks. Sellers of most consumer durables, on the other hand, will repair defective parts, or replace them within a particular time, but they will seldom replace the entire product or refund the price,

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and will almost never agree voluntarily to bear consequential damages.\(^6\) Although sellers often praise their products, the contracts they make shift a large proportion of risks to buyers. Yet courts seldom infer, or consider the possibility of inferring, that the apparent pervasiveness of this custom may mean that buyers should ordinarily expect some form of disclaimer.

Furthermore, the middle class today commonly laments the poor quality of many domestic products, and the habit of sellers not to make good their failures. Likewise, many of our urban poor are regarded as deeply mistrustful of merchants who sell shoddy goods, but make no recompense for them.\(^7\) In many cases, the middle class and poor may expect to bear risks, whether they read sales contracts or not. Protecting such buyers against "unread clauses" is thus inconsistent with a policy of protecting their expectations. Finally, the scant empirical evidence we do have about buyer expectations indicates that consumers frequently expect to bear personal injury losses themselves.\(^8\) Yet it is in just these situations that courts try hardest to impose risks on sellers.\(^9\)

This is not to say that the models many courts have developed, as to what buyers should expect the terms to have been, are factually erroneous, for the contrary evidence is all too tentative. However, because we are ignorant of many facts relevant to these models, it is difficult to apply them neutrally.

These models are also shaped by policy considerations. It may be prudent, for example, for buyers to read fine print and have arcane terms translated since it is a commonplace that people are bound by what they sign. Yet the law today seldom requires buyers to do these things; the cases instead hold that a buyer who is ignorant of the contents of fine print "should not" have expected those contents.\(^0\) The real issue is the extent to which buyers should have to inform themselves about the transactions they make. The cases, however, seldom answer this question. More commonly they beg it by criticizing such things as fine print or legal language (when neither would be a barrier to holding buyers to sales con-

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66. See note 17 supra & text accompanying.
68. Whitford, supra note 47, at 148. Professors O'Connell and Simon surveyed 391 automobile accident victims and found that 72 per cent of them did not expect compensation for pain and suffering before their accidents; the authors suggest that people who purchase products have similar expectations. O'Connell & Simon, Payment for Pain and Suffering: Who Wants What, When and Why?, 1972 U. Ill. L.F. 1, 15, 19, 54 (1972).
70. See text accompanying notes 54-61 supra.
tracts if we chose to require buyers to read documents), or they mecha-
nically cite the statute.71 The consequence of this is a lack of predictability.
Although the cases fall into rough patterns, such questions as which
buyers will be classified as ignorant, how much ignorant buyers must do
and what seller language will suffice to shift risks to buyers are today
quite alive after years of litigation.

The silence of many courts on these important questions of facts and
values is the obvious result of doing one thing while saying another—of
purporting to protect bargains while instead imposing risks on sellers. It
is important to ask why courts have done this, for it must not be done if
the law is to rely on the parties' bargains as the means of achieving
its goals.

(2) Causes of the Problem and Possible Cures

The results I have described are attributable primarily to the limita-
tions of the judicial process. In the first place, courts cannot conduct
surveys to ascertain what sellers actually do and what buyers in fact ex-
pect, nor are they likely to be informed in these respects by litigants be-
cause the cost of finding facts such as these will almost always outweigh
the amounts in suit. Thus, the judges must apply a policy of protecting
bargains, which has a large factual content, without the facts. When that
is done, the tendency to view the world through the distorting lens of
policy is almost irresistible.

The failure to resolve the information concern has also contributed
substantially to the courts' difficulties. When buyers are perceived as
lacking information, the policy of protecting bargains appears to clash
with the policies of avoiding loss concentrations and improving product
quality. I have previously argued that courts should not protect bargains
when buyers are uninformed since the principal benefit private ordering
yields is that decisions are made by the most competent persons (i.e., those
who are attempting to satisfy their own wants), and this benefit dis-
appears when buyers are ignorant. The more common view is that if a
buyer is aware of the contract's risk allocation, that allocation should be
enforced; in other words, many think the requirements which freedom of
contract imposes are satisfied if the buyer knows he is bearing R. The
Code, moreover, lends support to this view, because it implies that con-
spicuous disclaimers should be enforced.72 However, a buyer who knows

71. See also, e.g., Holcomb v. Cessna Aircraft Co., 439 F.2d 1150 (5th Cir. 1971);
Ford Motor Co. v. Reid, 250 Ark. 176, 465 S.W.2d 80 (1971); Sarnecki v. Al Johns
72. See Uniform Commercial Code § 2-316(2).
only that he is bearing R, but who is ignorant of the values of it, A(b) and X may fail to shift R when that would be the cheapest course, and he may continue to purchase products with risk costs sufficiently high to have precluded purchase, if those costs were actually known. Thus, enforcing the risk allocation may neither reduce loss concentrations nor improve product quality. The belief that the three policies I have been discussing are inconsistent has been largely responsible for the frequent adoption of strict liability in tort, which imposes risks on sellers regardless of the buyer’s knowledge of exculpatory clauses. Courts which use the Code, however, often believe they have to reconcile the apparently conflicting policies of protecting bargains, avoiding loss concentrations and improving product quality. The difficult and controversial choices involved create enormous pressure to resolve matters by findings of “fact” that the buyer either did or did not know of the risk allocation, depending on the desired result, with the consequence that the policy of protecting bargains becomes a label, not a directive. This tendency, moreover, is exacerbated by the inability of courts to eliminate information gaps. Judges cannot gather the requisite facts, for example, as to the percent of defectives in a particular product batch, nor can they make the facts available to buyers prior to purchase. Instead, they can do nothing but enforce bargains possibly made in ignorance or impose risks on apparently informed sellers, and it is the latter choice that has often surreptitiously been made.

The state can ease these difficulties by supplementing the courts’ institutional limitations, and also by resolving the policy conflicts. We should, for example, consider the use of administrative agencies to find the facts which a decision to enforce bargains makes relevant, and possibly to enforce them. Also, if legislatures were to choose the values which the courts are to realize, judges could make clearer decisions on the facts which are available. A more satisfactory resolution is to regulate the disclosure of information, including the form of exculpatory clauses, and then make the contract almost the sole evidence of the bargain in the absence of fraud. This will afford ease of administration, predictability and the reduction of the personal element in decisionmaking. Bargains, in sum, can be neutrally enforced, but only if the causes of the present tendency to impose risks on sellers are eliminated.

73. Comment m to § 402A of the Restatement (Second) of Torts states that the “consumer’s cause of action . . . is not affected by any disclaimer or other agreement, whether it be between the seller and his immediate buyer, or attached to and accompanying the product into the consumer’s hands.” Restatement (Second) of Torts § 402A, Comment m, at 356 (1965). See also, e.g., Vandermark v. Ford Motor Co., 61 Cal. 2d 256, 391 P.2d 168, 37 Cal. Rptr. 896 (1964).
II. THREE PROBLEMS IN PRIVATE LAW

Part II deals with three problems which warranty and tort law have encountered: (1) the question, peculiar to warranty, whether sales contracts have an "essence" which allocates risks of nonconformity in certain ways; (2) the problem of "excessive" seller bargaining power; and (3) the issue whether vertical privity barriers should be abolished.

These problems arise in traditional law suits; and any criticism of their solutions must take into account the constraints which that method of dispute resolution imposes. Part II, in contrast to Part I, is therefore not an attempt to devise the best solution; it is written primarily as a critique of judicial solutions and an argument for different ones. The limited focus of the discussion, however, should not be taken to imply an approval of the use of the judicial process in this field. Both for the reasons previously given as to the efficacy of that process,\(^4\) and because courts often seem strongly committed to their own resolutions, legislation may be the only satisfactory law making device.

**Essence**

The essence doctrine allocates risks of nonconformity to sellers despite disclaimers. Although the contract may shift these risks to the buyer, courts will impose them on the seller if the "essence" of the transaction at issue is that sellers bear these risks. A comment to the express warranty section of a 1944 Draft of the Code, discussing cases which refused to enforce disclaimers, stated the position well:

Some [courts] have come closer to the heart of the matter by finding some fundamental subject matter "of the contract" which a disclaimer cannot in the circumstances be rightly construed to undercut. [Citing cases] But in result, whatever the rationale, such cases apply a rule of repugnancy to a disclaimer or merger clause or to so much of it as runs counter to the plain essence of the bargain.\(^5\)

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\(^4\) See text immediately following "(2) Causes of the Problem and Possible Cures," p. 38 supra.

The essence doctrine, however, is either an unnecessarily abstract way to phrase the policy of protecting bargains or it is tautological. As far as the first point is concerned, essence is principally used to resolve apparent conflicts between the promises a seller makes and the contract's exculpatory clause. Now a seller cannot promise to bear \( R \) and not bear \( R \) at the same time. A contract which contains language, or is surrounded by circumstances, indicating that the seller will bear \( R \), but which contains an exculpatory clause which arguably shifts \( R \) to the buyer, must be construed to see what the parties' intentions with respect to \( R \) in fact were. For example, assume that a contract to sell oranges contains an exculpatory clause which shifts all risks to the buyer, but the seller delivers apples. The parties may have intended the exculpatory clause to refer only to risks which were likely to occur—that the oranges would be rotten—and have also tacitly assumed that if the seller made such an egregious and improbable mistake as to deliver apples, he would bear the cost. A decisionmaker would thus be justified in not reading the exculpatory clause as shifting the risk of delivery of a different product to the buyer although it was literally applicable to that risk.\(^{76}\) The policy the decision-maker would be pursuing is that of enforcing bargains. One can also say, as some do, that the exculpatory clause ran counter to the bargain's "essence" which was to deliver oranges; but if that phrase means only that the seller's construction of the contract was not reasonably to be expected, one is using a confusing, meaningless, and therefore unnecessary term.\(^{77}\)

This doctrine, however, may be more than another way of phrasing

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76. A good many cases so hold. E.g., Foster v. Bradney, 143 Ark. 319, 220 S.W. 811 (1920) (used tractor delivered instead of new); W.F. Main & Co. v. Dearing, 73 Ark. 470, 84 S.W. 640 (1905) (cheap brassy jewelry not of kind the contract described); Detwiler v. Downes, 119 Minn. 44, 137 N.W. 422 (1912) (cast iron pins installed instead of steel installed in a sawmill machine); Loveland v. Steenerson, 99 Minn. 14, 108 N.W. 831 (1906) ("wash plate" delivered instead of "rolled gold plate" jewelry); Smith v. Oscar H. Will & Co., 51 N.D. 357, 199 N.W. 861 (1924) (sweet clover seed delivered instead of Turkestan alfalfa); F. C. Austin Co. v. J.H. Tillman Co., 104 Ore. 541, 209 P. 131 (1922) (used machine delivered instead of new); Smeaton Hanscomb & Co., Ltd. v. Sassoon I. Setty, Son & Co. (No. 1), [1953] 1 W.L.R. 1468 (Q.B.) (dictum) (pine logs delivered instead of mahogany); Karsales (Harrow), Ltd. v. Wallis, [1956] 1 W.L.R. 936 (C.A.) (used car delivered in radically and visibly worse condition than when buyer inspected); Andrews Brothers (Bournemouth), Ltd. v. Singer & Company, Ltd., [1934] 1 K.B. 17 (C.A. 1933) (used car delivered instead of new). An alternative resolution of the conflict between language describing the product and an exculpatory clause is to read the seller's description as an opinion, which is particularly plausible when there is a legitimate possibility of confusing the product with another. Seeds offer the best example because it is difficult to distinguish between types. See Belt Seed Co. v. Mitchell Seed Co., 236 Mo. App. 142, 153 S.W.2d 106 (K.C. Ct. App. 1941); cf. Lumbrazo v. Woodruff, 256 N.Y. 92, 175 N.E. 525 (1931).

77. Professor Murray makes a similar criticism of the leading mutual mistake of fact cases. Murray, supra note 61, at 13.
the policy of protecting bargains. Its proponents seem at times to assert that all sales contracts have an “essence” which allocates certain risks to sellers, and that exculpatory clauses cannot be given effect because the essence is unchangeable. In this form, the doctrine is tautological. There is no need to define contracts as imposing an unalterable core of risks on sellers. Courts could as well define them as authorizing the parties to locate risks where they wish. The point, of course, is that the way courts define contracts is determined by the aims they want to achieve. Essence, for example, is thus occasionally put forward as the rationale for preventing buyers from bearing what some conceive to be a disproportionate share of risks. This goal, and others in which essence is used as a rationalization, should be explicitly pursued. Tautologies only obscure what courts or others want, and do not carry the reasoning forward.

**Unequal Bargaining Power**

The unequal bargaining power concept has been used as the rationale for striking contracts when the seller can determine the bargain’s terms, and those terms are considered “unreasonably favorable to the stronger party.” Terms, however, can only be “unreasonably favorable” if they make possible results which it is the policy of the state to avoid. Courts should therefore be unconcerned with seller bargaining power, in this area, because contractual clauses shifting risks of nonconformity to buyers will not produce results inconsistent with those the courts seek. This is especially true of the policy of protecting bargains. That policy is neutral with respect to the outcome of those bargains; it requires a court only to ascertain whether an informed buyer would be aware of the risk allocation, and if he would, the court should enforce it. This is as true for buyer expectations that all risks are on them as that all risks are on sellers. The argument that a seller’s economic power may result in buyers bearing more risks than they would had the parties been of equal strength does not affect a policy that seeks only to give buyers what they could reasonably believe they were getting.

Sales law, however, has often sought to use buyer expectations of

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78. See K. Llewellyn, *supra* note 75, at 368-70.
79. Llewellyn thus remarked of his argument that sales contracts have an iron essence: “The text attempts merely to present a technical argument which under the language of the [Sales] Act itself can make a good deal of balancing of bargain entirely respectable in law, for any court which feels like rolling up its sleeves.” *Id.* at 387 n.119.
risks as a weapon against powerful sellers. Llewellyn, in an influential book review in which he discussed contracts of adhesion, suggested:

[W]here bargaining is absent in fact, the conditions and clauses to be read into a bargain are not those which happen to be printed on the unread paper, but are those which a sane man might reasonably expect to find on that paper. The background of trade practice gives a first indication. . . .

However, a "sane man" dealing with a powerful seller might expect harsh clauses, particularly if "trade practice" is to use them; and if such clauses are actually unexpected, and therefore unenforced, strong sellers will only make them visible because their buyers cannot easily refuse. Should that be done, the policy of protecting bargains affords no reason to strike the clauses. Because this policy is neutral with respect to the outcome of any given bargain which involves informed buyers and reasonably clear exculpatory clauses, it must therefore also be neutral with respect to seller bargaining power, since that power only shapes bargains in certain ways.

A policy of avoiding concentrated losses should also be unaffected by seller bargaining power because loss concentrations can be avoided whether sellers have power or not. Assume that a seller with a monopoly in electric lawn mowers shifts R to informed buyers. If the buyers choose not to gamble or incur avoidance costs, they can shift R to insurance companies or back to the seller. The seller should accept the shift because even monopolists will bear risks for a price. Moreover, the price a monopolist will charge for R will probably be competitive since a product monopoly seldom carries with it monopolistic control over bearing the risks associated with that product. This is obviously true for the risks of personal injury or property damage—control over lawn mowers cannot bring with it


82. The Supreme Court, though, recently adopted a version of Llewellyn's argument, when it declared unconstitutional state statutes which authorized sellers to replevy goods before final judgment and without a hearing, although the sales contracts authorized such repossessions. The Court stated:

There was no bargaining power over contract terms between the parties who, in any event, were far from equal in bargaining power. The purported waiver provision was a printed part of a form sales contract and a necessary condition of the sale. The appellees made no showing whatever that the appellants were actually aware or made aware of the significance of the fine print now relied upon as a waiver of constitutional rights.

Fuentes v. Shevin, 407 U.S. 67, 95 (1972). If, however, the repossession clauses were in fact "a necessary condition of the sale," the buyers would probably have taken them if they were visible; and after this case, such clauses will be both visible and, if the only applicable policy is to protect bargains, enforceable.
control over the insurance market against these risks. In a different context, the number of independent auto repair shops illustrates the difficulty of getting control over a repair market even when one has some control over the product. Finally, even if sellers will bear the repair risk only at a monopolistic price, there will still be no loss concentrations because the price will have been taken into account before purchase. That is to say, if buyers have information, they will value the repair risk at the seller’s rates, and if it is not too high to preclude purchase, they will expend the money on repairs when necessary, or pay the seller in advance to make them. A policy which seeks to avoid loss concentrations, in sum, is unconcerned with seller bargaining power because buyers can shift losses regardless of how much power sellers have.

I have also shown that, information problems aside, competitive markets reach optimality without the state’s aid. Monopolistic markets, where sellers have unequal bargaining power, misallocate resources by producing less than buyers want. Nevertheless, monopolists react similarly to competitors where allocations of risks of nonconformity are concerned. We should therefore have little interest in the location of these risks in the monopoly case; and consequently should be unconcerned with the unequal bargaining power phenomenon, of which monopoly is the paradigm.

Assume that A(b) and A(s) are both greater than R. Monopolists, roughly speaking, price just below the prices of substitutes. If, therefore, buyers will pay up to, but no more than, $30 for a product and R is $5, a monopolist who disclaims will charge $25. Banning the disclaimer will cause a price increase to $30. An informed buyer’s cost perceptions will be unchanged, however; and so will output. Nor will the seller be induced to make the product differently as a result of the ban.

Output will also be unaffected by banning disclaimers when either or both parties have avoidance costs lower than R, because monopolistic sellers will bear those risks they can more cheaply avoid. If their costs can be lowered, price can also be lowered without affecting unit profit; and it is then in a monopolist’s interest to lower price, for this increases output and total profits. To use the example above, if A(s) is $2 and A(b) $4, a monopolist will already be bearing R because this enables a price of $28 per unit rather than $30, without affecting unit profit; and

83. A monopolist restricts output because price is inversely related to supply, and the price decreases which output increases bring will be borne only by him, since he produces the entire supply. See G. Stigler, The Theory of Price 197-99 (1966). Output, and in consequence price, is thus set at the point where, given the demand and costs, profits will be maximized.
a price of $28 is plainly preferable to the seller since that yields more sales and higher total profits. In monopolistic markets, therefore, bargains will also produce the preferred level of defective goods. A policy which seeks to improve product quality through allocations of risks of nonconformity should then be unconcerned with the seller's economic power, since that power has no bearing on the policy's aim.

The effectiveness of judicial policies in connection with defective products thus does not require equal bargaining power of sellers and buyers. To be sure, if buyers are uninformed, enforcing the bargains they agree to is unwise, and the ability of the market to avoid loss concentrations and improve product quality will be adversely affected. This, however, is not a criticism of the analysis, but is its point—i.e., the state should not be concerned with bargaining power but with the information problem.

It is a commonplace, however, that courts are quite concerned over seller bargaining power, and the cases often refuse to enforce exculpatory clauses on the ground that the buyers had no choice but to submit. The famous case of *Henningsen v. Bloomfield Motors*84 is only one example. To the extent that these cases equate unequal bargaining power with a lack of information—that the buyer lacks power because he lacks knowledge—they are unexceptional. When buyers lack knowledge, the state may provide information or impose risks, but judges can only impose risks.85 The decisions, however, seem also to aim at the phenomenon of market power. This, as the foregoing shows, is wrong since the seller's market power impedes none of the aims that judges themselves wish to realize.86

84. 32 N.J. 358, 161 A.2d 69 (1960).
85. It is another question whether courts have the institutional competence to identify information gaps accurately. I doubt they can do this well, cf. discussion of *Wilson Trading* beginning at note 30 supra, but with no one else doing it at all it is difficult to criticize them for trying.
86. I have in mind cases such as Sarfati v. M.A. Hittner & Sons, Inc., 35 App. Div. 2d 1004, 318 N.Y.S.2d 352 (1970), in which an automobile lessor which was held liable for personal injuries incurred by a lessee was allowed to recover against the manufacturer in spite of a disclaimer because, *inter alia*:

The lessor herein, Hittner, is in no better commercial position than the consumer. It is in no position to alter the warranty or negotiate for better protection and, consequently, American's disclaimer of warranty is equally unconscionable as to the lessor of the vehicle (see *Henningsen v. Bloomfield Motors*, 32 N.J. 358).

Id. at 1005, 318 N.Y.S.2d at 354. See also Ford Motor Co. v. Tritt, 244 Ark. 883, 430 S.W.2d 778 (1968) (dealer allowed to recover against Ford despite disclaimer). If these buyers were informed as to risk and avoidance costs, which seems likely, cases such as these are pointless.
The question is whether an end user (B), who concededly can sue his own seller (S2) for product defects, should also be allowed to sue the one who sold to his seller, or the one who sold to that seller, and so forth (the remote sellers are called S1). Assume that B is informed. The policy of protecting bargains implies that whether B can sue S1 depends on whether S1 engendered in him expectations that S1 would bear R. If so, the suit should be allowed. This policy therefore provides no simple answers, but rather demands a case by case determination.

The goal of improving product quality does not require imposing R on S1. B and S2 will allocate risks among themselves in the most efficient way; that is to say, the party whose avoidance costs are lower will bear R. If S1 has lower avoidance costs than either of them, he will bear R. For example, assume R is $5, A(b) is $6, A(S2) is $4 and A(S1) is

87. The horizontal privity question, whether one who is a stranger to the transaction may sue one or more of the parties to it for injuries suffered as a result of defects, seems now for the most part correctly being answered in favor of allowing the suit. UNIFORM COMMERCIAL CODE § 2-318, Alternative A, authorizes actions against retailers by members of the buyer's family or household and guests in his home. Employees and bystanders have been permitted to recover as well. See Delta Oxygen Co. v. Scott, 238 Ark. 534, 383 S.W.2d 885 (1964) (employee); Elmore v. Am. Motors Corp., 70 Cal. 2d 578, 451 P.2d 84, 73 Cal. Rptr. 652 (1964) (bystander); Heckel v. Am. Coupling Corp., 384 Mich. 19, 179 N.W.2d 381 (1970) (employee); Piercefield v. Remington Arms Co., 375 Mich. 85, 133 N.W.2d 129 (1965) (bystander); Murray v. Bullard Co., 110 N.H. 220, 265 A.2d 309 (1970) (employee); see Comment, Strict Products Liability to the Bystander: A Study in Common Law Determinism, 38 U. CHI. L. REV. 625 (1971); Prosier, The Fall of the Citadel (Strict Liability to the Consumer), 50 MINN. L. REV. 791 (1966). The bystander cases seem unexceptional, but the employee cases are troublesome: strangers should win because they constitute unorganized groups; thus they are unable to negotiate in advance with parties to the bargain to shift risks to those parties, or to be themselves paid for bearing risks. Certain costs of defects will therefore be externalized from the buyer/seller transaction, and sellers will have no incentive to reduce them. Employees, however, may bargain with their employer respecting these risks before any accident occurs, particularly if they are unionized; the costs of defects can therefore be internalized. Employees, moreover, will not bear all losses attributable to an accident because of the availability of workman's compensation, which renders the goal of avoiding loss concentrations partly inapplicable. The cases nevertheless are now treating all third parties alike.

88. The cases sometimes allow consumers to sue manufacturers because the manufacturer's advertising was directed to the general public. E.g., Garthwait v. Burgio, 153 Conn. 284, 216 A.2d 189 (1965); Inglis v. Am. Motors Corp., 3 Ohio St. 2d 132, 209 N.E.2d 583 (1965). See also Kessler, Products Liability, 76 YALE L.J. 887, 892-93 (1967). Such cases are often badly reasoned, however, because manufacturer assurances that quality is high are consistent with an intention that consumers or retailers bear the risk that quality is in fact low, and such assurances may at times be so understood. A new car buyer, for example, may have been swayed by national ads to choose a brand, but may also have selected the dealer because of the service he will render since it is often understood that only dealers provide redress when things go wrong. The text thus argues that consumers should be allowed to sue manufacturers only if they can reasonably expect manufacturers to bear risks.
$2. B and S2 will agree such that R is on S2; S2 and S1 will agree such that R is on S1. If, moreover, A(b) were $4 and A(s2) were $6, but A(sl) were $2, S1 would still bear risks. In this case, S1 will induce S2 to bear R in the B-S2 bargain, and then shift it to S1, since this will produce the lowest price. The effect on output and quality will be optimal without the law’s aid, and there is thus no need to impose R on S1.

The policy of avoiding loss concentrations is, with an exception to be noted, also satisfied if B is limited to actions against S2. Since an informed buyer can shift R to insurance companies or S2, there is no need to impose risks on S1. The exception is that if B shifts risks to S2, and S2 becomes bankrupt before he is called on to pay, the loss will then be concentrated on B. It is often said that R should be imposed on S1 to avoid this “bankruptcy risk,” for if B has a choice of defendants, both are unlikely to be broke at once. This is not a conclusion which follows logically from the premise, for if B’s “insurance company” goes bankrupt S1 is no more a logical secondary insurer than the nearest bank or rich man. It may be argued that S1 will be better able to predict liability than strangers to the product, and that it is thus fairer to burden him. Such predictions can best be made, however, if R is imposed on S1 before the fact. If that is done, however, the law will create the anomalous, and absurd, situation of allowing B and S2, both of whom are fully informed, to bargain freely over R, while imposing R on S1, for the sole reason that B may shift R to S2 and S2 may later go bankrupt. The logical absurdity can be avoided by also imposing R on S2; but the fact that a retailer may go bankrupt seems hardly sufficient to justify an across the board abandonment of bargains. It seems plainly preferable to have B bear the bankruptcy risk, at least unless it is likely to be large, and recent evidence indicates this will not be so.

89. A solution less disruptive than imposing risks on S1 in all cases would be to impose them only when S2 is judgment proof; thus, B would have to prove as part of his affirmative case against S1 that S2 could not respond in damages. This solution seems seldom to have been suggested, perhaps because it appears an unprincipled or excessively blatant application of the deep pocket theory. More telling objections are, as indicated above, that S1 may be unable to predict his dealers’ bankruptcies with any certainty, and that such a rule would strengthen S1’s desire to deal only with financially stable people, thereby making it difficult for small retailers to function. These objections lose some force, however, when it is realized that the bankruptcy risk is slight. See note 90 infra. Nevertheless, because of them, and other reasons the text indicates, I prefer leaving the bankruptcy risk on B: but the solution of making S1 liable only when S2 cannot pay is plainly more satisfactory than making S1 always liable.

90. In fact, the risk is probably slight. In 1967, for example, there were 2,047,000 retail trade outlets, and 5,696 retail bankruptcies, a percentage of .003; in 1968, there were 2,113,000 retail trade outlets, and 4,366 retail bankruptcies, a percentage of .002; in 1969 there were 2,191,000 retail trade outlets and 4,070 retail bankruptcies, a percentage of .002. DUNN & BRADSTREET, THE FAILURE RATE THROUGH 1968, 8-9
Other reasons argue for the same result. Sellers bargain with buyers over repairs, replacements, refunds and so forth. Often, it may be more efficient for them to deal only with immediate vendees, whose number and characteristics are easily known, than for them to deal with subusers. If the law insulates S1 from B, S1 can deal only with his own vendees when that would be efficient. And when it would be more efficient to deal with subusers as well, S1 is free to do so. On the other hand, if the law allowed B to recover from S1, S1 would be compelled to deal with any end user who raised a claim. Therefore, allowing B to sue S1 (i.e., abolishing vertical privity barriers) may yield less efficient dispute resolution systems. The logical and policy difficulties involved in imposing R on S1 in all cases, together with the slightness of the bankruptcy risk and the possible gains from limiting B to S2, all suggest that the goal of avoiding concentrated losses affords insufficient reason to eliminate vertical privity barriers. When, in sum, B is informed, privity should be retained, except in those cases when S1 agrees to bear R. 91

When B is uninformed, the state can provide information, in which case the resolution of the vertical privity question is of course unchanged. If, however, the choice is to impose risks, and thus abandon the policy of protecting bargains, the privity issue is whether to impose them only on S2, or also on S1. The goal of improving product quality is neutral. If R is imposed on S1 and/or S2, they will still allocate it optimally between them. Likewise, the goal of avoiding loss concentrations is analyzed in the same way whether B is informed or not, with one exception. If a legislature decides to impose risks, it might initially impose them on S2, and

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91. A common argument for abolishing vertical privity barriers is that this will avoid circuitry of actions, wherein the retailer who is initially sued will have to sue his seller and so forth. E.g., Santor v. A & M Karagheusian, 44 N.J. 52, 207 A.2d 305 (1965) ; Prosser, supra note 1, § 97, at 650-51. The argument, however, is fallacious. In the text's hypothetical, if B is limited to an action against S2, whether there will be one or two law suits depends not on the law but on whether S1 shifted R to S2 by a disclaimer; if so, S2 will bear the loss alone. If, on the other hand, B is allowed to sue S1, whether there will be one law suit or two depends not on the law but on whether S1 shifted R to S2 by means of an indemnification clause; if so, there will be two actions, B v. S1 and S1 v. S2. Such clauses, it has been suggested, will become more common as privity barriers are abolished. 3 L. Frumer & M. Friedman, Products Liability § 44.01[2] (1970). The number of actions there will be, in sum, is independent of privity rules; it depends, rather, on how the commercial parties allocate risks among themselves.
there will therefore be no absurdity in imposing \( R \) on \( S_1 \) while allowing \( S_2 \) to disclaim. Nevertheless, the slightness of the bankruptcy risk together with the gains in efficiency from insulating \( S_1 \) still suggest the desirability of retaining privity barriers.

Vertical privity barriers should therefore be retained whether buyers are informed or not.\(^9\) But as everyone knows the courts have largely dismantled them. This of course has yielded small gains, but it is not especially troublesome. The principal loss has been to make some dispute resolution systems more expensive, and intuition indicates that that is unlikely to be a very large loss. If, however, we decide to deal in a thorough way with the question of allocating the risks of defective products, the vertical privity question should be reconsidered.

III. RISKS UNDER THE UNIFORM COMMERCIAL CODE

Warranty law for many years was primarily responsible for allocating risks of nonconformity between the parties to sales. Recently, it has shared its role with the law of tort, particularly in cases of personal injury,\(^3\) but its field of exclusive operation remains large, and a substantial number of personal injury cases are still resolved by it. Warranty law is currently codified in the *Uniform Commercial Code*. The significance of that statute justifies an analysis of its response to the problems which defective products pose.

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92. The text's argument, it should be emphasized, is that the two principal reasons for abolishing vertical privity barriers, to avoid concentrated losses and to put the risk on the party presumably best able to avoid it, are satisfied even for uninformed buyers if \( R \) is on \( S_2 \), the retailer. The text's point, however, can be turned around, by saying that these goals can also be satisfied by imposing \( R \) on \( S_1 \) because when \( S_1 \) and \( S_2 \) bargain, who initially bears the loss is irrelevant; imposing \( R \) on both sellers, moreover, reduces the bankruptcy risk. To this I reply that the bankruptcy risk is small, and that there is a cost to imposing \( R \) on \( S_1 \) in yielding less efficient dispute resolution systems. It may be argued, however, that \( S_1 \) can pay \( S_2 \) to deal with \( B \) when that would be more efficient, and thus abolishing privity would do \( S_1 \) no harm; but there seem to be great practical difficulties in shunting \( B \) to \( S_2 \) when \( B \) prefers to proceed against \( S_1 \) and has the legal right to do so. \( S_1 \), in sum, will likely have to deal with \( B \), and that may cost more than it is worth.

Finally, it has often been argued that \( S_1 \) should be liable because he put the article on the market, and thus "caused" the accident, or that his putting the article on the market entailed an implicit representation of safety. The first argument is meaningless because it is as easy and irrefutable to say that the accident was "caused" by the purchase. The second argument rests on an empirical premise, that buyers rely on a representation of safety and expect manufacturers to pay when the product fails, which is contradicted by the only studies done. See authorities cited note 68 supra. Of greater significance, the point seems insincerely made because if a representation supports liability, manufacturers should be allowed to, and in their contracts do, counteract it; but the usual practice is to recite there is a representation and pass over disclaimers.

93. See, e.g., Cunningham v. MacNeal Memorial Hospital, 47 Ill. 2d 443, 266 N.E.2d 897 (1971) (applying the Restatement (Second) of Torts § 402A (1965) to the sale of "bad blood").
The Code creates two warranties, express and implied. Under the first, if a seller asserts that the product has a particular trait, e.g., it has four cylinders, he bears the risk of any loss caused by the absence of that trait, provided that his assertion was "part of the basis of the bargain."94 A seller who asserts nothing thus makes no express warranties. If a seller makes assertions about the product, but wishes not to bear risks, he can disclaim.95 Section 2-316(1) directs the courts to harmonize words which suggest the seller will bear risks with words that he will not, but if the two sets of statements cannot reasonably be read together, "negation or limitation [of the warranty] is inoperative. . . ."96

Implied warranties are of two kinds. First, if the seller ordinarily vends the goods in question, he necessarily bears practically all risks of nonconformity. The statutory phraseology is that the seller makes a warranty of "merchantability," and that goods, "to be merchantable," must, inter alia, "pass without objection in the trade under the contract description" and be "fit for the ordinary purposes for which such goods are used. . . ."97 Sellers who prefer not to bear these risks may disclaim. Section 2-316(2) requires such disclaimers, if in writing, to "mention merchantability" and to "be conspicuous."98 If the seller fails to do these things, he may shift risks to buyers in other ways, for § 2-316(2) is made subject to § 2-316(3), and that subsection allows the warranty to be excluded by phrases such as "as is" or "with all faults" or other language which in "common understanding calls the buyer's attention to the exclusion of warranties and makes plain that there is no implied warranty. . . ."99

Finally, buyers may use products for "particular purposes" which sellers ordinarily cannot anticipate. If, however, the seller "has reason to know" the buyer's purpose, and to know that the buyer is "relying on" his "skill or judgment to select or furnish suitable goods," the seller bears the risk that the goods will not suit the use to which they will be put; he has made an implied warranty of fitness for a "particular purpose."100 Sellers

94. Uniform Commercial Code § 2-313(1).
95. Id. § 2-316.
96. The full subsection reads:
Words or conduct relevant to the creation of an express warranty and words or conduct tending to negate or limit warranty shall be construed wherever reasonable as consistent with each other; but subject to the provisions of this Article on parol or extrinsic evidence (Section 2-202) negation or limitation is inoperative to the extent that such construction is unreasonable.
Id. § 2-316(1).
97. Id. §§ 2-314(1), (2)(a), (2)(c).
98. Id. § 2-316(2).
99. Id. § 2-316(3)(a).
100. Id. § 2-315.
who desire not to make this warranty can dispel buyer reliance, by, \textit{inter alia}, disclaiming; and § 2-316(2) authorizes disclaimers of the fitness warranty if they are in writing "and conspicuous."\textsuperscript{101}

Even if a seller makes an express warranty or fails to disclaim an implied one, he need not bear all risks associated with noncompliance. Section 2-719(1) authorizes sellers to limit the remedies arising from warranty breaches to the "return of the goods and repayment of the price. . . ."\textsuperscript{102} However, if such a limitation, in the "circumstances . . . fail[s] of its essential purpose . . .," the buyer may pursue all remedies, which means that the seller bears all risks.\textsuperscript{103} In addition, while a seller may refuse to bear consequential damages, such refusals are only given effect when not "unconscionable."\textsuperscript{104} Finally, § 2-302 authorizes courts to strike any "unconscionable" contract, or contract clause;\textsuperscript{105} and despite scholarly criticism, it has been held that a disclaimer of warranties which satisfies the requirements of § 2-316(2) may be given no effect if it is unconscionable.\textsuperscript{106}

The most striking thing about this statutory scheme is its irresolution. The Code apparently pursues only the goal of protecting bargains, for it seems to impose no risks on sellers, who are left free to make no express warranties and to disclaim all implied ones. However, the text permits courts to impose risks on sellers if they perceive exculpatory clauses to be unconscionable, and some have done so. Moreover, whether warranties have been made or disclaimed is largely at the courts' discretion. The making of an express warranty turns initially on whether any seller assertions were "part of the basis of the bargain,"\textsuperscript{107} but courts are left to find, or define, that bargain, and it may also turn on whether phrases of assertion are "reasonably" consistent with words shifting risks to buyers.\textsuperscript{108} Whether implied warranties are successfully disclaimed turns largely on whether language of disclaimer was "conspicuous,"\textsuperscript{109}

\begin{itemize}
\item \textsuperscript{101} \textit{Id.} § 2-316(2).
\item \textsuperscript{102} \textit{Id.} § 2-719(1).
\item \textsuperscript{103} \textit{Id.} § 2-719(2).
\item \textsuperscript{104} \textit{Id.} § 2-719(3).
\item \textsuperscript{105} \textit{Id.} § 2-302.
\item \textsuperscript{106} \textit{See} authorities cited note 45 supra. The principal critic of this result is Professor Leff, who argues that when the draftsmen explicitly regulated the manner in which warranties can be disclaimed, it is unreasonable to impute to them the intention to allow disclaimers proper in form to be struck down by use of § 2-302. Leff, \textit{Unconscionability and the Code—The Emperor's New Clause}, 115 U. Pa. L. Rev. 485, 523-24 (1967) [hereinafter cited as Leff].
\item \textsuperscript{107} \textit{Uniform Commercial Code} § 2-313(1) (a).
\item \textsuperscript{108} \textit{Id.} § 2-316(1).
\item \textsuperscript{109} \textit{Id.} § 2-316(2).
\end{itemize}
an inquiry susceptible of varying answers,\textsuperscript{110} and it may also turn, under § 2-316(3)(a), on whether the seller's language "in common understanding" would communicate the absence of warranties.\textsuperscript{111} Moreover, if sellers do make warranties, but attempt to shift risks to buyers by limiting remedies, courts are authorized to strike such clauses if they "fail" of their "essential purpose" or are unconscionable. These standards have no intrinsic meaning, but must be given content as the occasion arises.\textsuperscript{112}

Statutes cannot help but delegate much to those who enforce them. But unless that delegation is informed by decisions on the basic policies, its effect is to shift the problem to another forum. The Code is irresolute because such decisions seem not to have been made, or, if made, were assuredly not disclosed. The text itself communicates only that risks of nonconformity will ordinarily be on sellers unless sellers shift them to buyers, but that such shifts can be held ineffective if the courts for reasons satisfactory to them so decide. The comments, as a brief analysis of them indicates, communicate little more.

Comment 4 to § 2-313, for example, after criticizing disclaimers,\textsuperscript{113}

\textsuperscript{110} See text accompanying notes 45-60 supra.
\textsuperscript{112} As to the lack of direction the phrase "unconscionable" provides see Leff, supra note 106. \textsc{Uniform Commercial Code} § 2-719(2) authorizes courts to strike a remedy limitation which "circumstances" have caused "to fail of its essential purpose." But since the purpose of a remedy limitation is to limit remedies, one can fail only if the courts will not enforce it, which means that § 2-719(2) authorizes nothing at all. The comments attempt to supplement the text by reciting that the section enables courts to strike a clause which "because of circumstances fails in its purpose or operates to deprive either party of the substantial value of the bargain. . . ." \textit{Id.}, Comment 1 (emphasis added). The phrase before "or" says nothing; the phrase after says scarcely more. If the contract contained a remedy limitation, the "bargain" was that the buyer's remedies were limited; when, therefore, a loss occurs and the seller asserts that the contract requires the buyer to bear it, giving credit to the assertion cannot deprive the buyer of the "substantial value of the bargain," for his bargain was to bear that loss. Again, the only way a party can be deprived of the substantial value of the bargain would be for the court to refuse to enforce the contract, thereby depriving the seller of the bargained for limitation. Section 2-719(2), in sum, is meaningless as written, and in consequence has been taken by courts as a carte blanch. \textit{See, e.g.}, Wilson Trading Corp. v. David Ferguson, Ltd., 23 N.Y.2d 398, 244 N.E.2d 685, 297 N.Y.S.2d 108 (1968).
\textsuperscript{113} The language which precedes that to be quoted above recites:

In view of the principle that the whole purpose of the law of warranty is to determine what it is that the seller has in essence agreed to sell, the policy is adopted of those cases which refuse except in unusual circumstances to recognize a material deletion of the seller's obligation. Thus a contract is normally a contract for a sale of something describable and described. A clause generally declaring 'all warranties express or implied' cannot reduce the seller's obliga-
states: "This is not intended to mean that the parties, if they consciously desire, cannot make their own bargain as they wish." This implies that the Code will enforce the parties' risk allocations, which in my terminology means that the Code is pursuing a policy of protecting bargains. Comment 1 to § 2-719, however, asserts that

> [I]t is of the very essence of a sales contract that at least minimum adequate remedies be available. If the parties intend to conclude a contract for sale within this Article they must accept the legal consequence that there be at least a fair quantum of remedy for breach of the obligations or duties outlined in the contract.

Since all contracts for the sale of goods must fall "within" the Code's jurisdiction, and since it is possible for buyers to agree that sellers will attempt to supply products of good quality, but pay little or nothing if they fail, this comment suggests that policies other than protecting bargains are operative. Moreover, comment 1 to § 2-302 states that the "principle" underlying unconscionability "is one of the prevention of oppression and unfair surprise. . . ." This implies that a contract may be oppressive but not surprising, and thus also suggests that policies other than freedom of contract are at work. Finally, § 2-318 "extends" the benefit of any warranties a seller makes to his buyer "to any natural person who is a guest in his home" if the seller could reasonably expect that

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114. UNIFORM COMMERCIAL CODE § 2-313, Comment 4.
115. Id. § 2-719, Comment 1 (emphasis added).
116. Article 2 of the Code applies to "transactions in goods," Id. § 2-102, with goods defined as all things . . . movable at the time of identification to the contract for sale other than the money in which the price is to be paid, investment securities . . . and things in action.
117. Id. § 2-302, Comment 1.
person to "use, consume or be affected by the goods" and he "is injured in
person by breach of the warranty." Guests and relatives, however, can
seldom reasonably expect sellers to bear the risk of their injuries because
they have not dealt with those sellers and thus have no basis on which to
conclude that the sellers will compensate them. Plaintiffs such as these
can recover only because the Code is also pursuing the policies of avoiding
concentrated losses and improving product quality. But if that is so, the
Code's decision to allow sellers to prevent recovery by these plaintiffs by
disclaiming to their buyers appears irrational. For just as guests do not
win because the seller communicates to them an intention to bear risks,
they should not lose when the seller communicates to others an intention
not to bear risks. The comments to § 2-318, however, fail to discuss this
problem. Indeed, neither they nor the comments to any other warranty
section mention the policies of preventing loss concentrations or improv-
ing product quality, nor do they disclose their implications or relate them
to the goal of letting the parties "make their own bargain as they
wish."120

The principal criticism of the Code's decisions with respect to allocat-
ing risks of nonconformity, therefore, is that there seem to have been no
decisions. The matter is left to the courts, to impose risks or protect
bargains, without statutory guidance, The Code's most serious specific
omission was not treating the information problem. The central task of
a body of law which allocates risks of nonconformity is to decide which
buyers have information and which lack it, and to resolve the problems
caused by information gaps. This is a task the Code fails to address.
It does not classify buyers into those who are informed and those who are
ignorant; it neither provides buyers with information as to risk and
avoidance costs nor creates a mechanism whereby such information can
be provided; it does not itself impose risks, as the alternative to providing
information, on the sellers of uninformed buyers; it fails to instruct the
courts to make such impositions; and it resolves none of the value choices
which a lack of information poses.

The result of this failure is to thrust courts into an area in which they
must inevitably perform badly. Courts lack the institutional competence
to provide information and to police it. They can instead only impose

118. Id. § 2-318, Alternative A.
119. Comment 1 to § 2-318 explains:
To the extent that the contract of sale contains provisions under which war-
ranties are excluded or modified, or remedies for breach limited, such provi-
sions are equally operative against beneficiaries of warranties under this section.
120. Id. § 2-313, Comment 4.
risks, which is the second best solution. Moreover, it is at times difficult to know when this should be done. A serious stereo buff, for example, may be sufficiently informed to bargain competently, while a small business purchasing a truck may not be; gross classifications, such as consumer/businessman, will thus often be wrong. The records sales law suits ordinarily yield, however, may often be insufficient to enable more accurate classifications to be made. And this defect is exacerbated by the Code's failure to focus the question to be decided—whether to impose risks—on the presence or absence of information, which reduces the parties' incentive to litigate the information issue fully. Finally, whatever the courts do, we have seen, will often be done in surreptitious and confusing ways.121

Dissatisfaction with judicial performance in warranty cases, moreover, has long been expressed, and encroachments on that performance are increasingly being made. Indeed, an important reason for creating the Code was the courts' poor treatment of warranty cases under the Uniform Sales Act.122 Today, several states have significantly limited the power the Code gives sellers to disclaim;123 courts often ignore the statute when deciding cases;124 and Congress has been threatening to federalize this area of the law.125 Allowing the courts to work entirely on their own,

121. The Code's failures are a major cause of the courts' refusal to enforce bargains neutrally. The section entitled "The Problem of Neutrally Enforcing Bargains," supra, dealing with this problem, may thus be read as a footnote to this more specific statutory analysis.
123. Maryland and Massachusetts amended the Code to abolish disclaimers in consumer sales, California severely limited a seller's ability to disclaim to consumers, and all three jurisdictions also make the enforceability of manufacturers' clauses limiting their obligation to the repair or replacement of defective parts of their products turn on the manufacturers' maintenance of facilities which will enable them reasonably to comply therewith. CAL. CIV. CODE §§ 1791-93 (West 1973); MD. ANN. CODE art. 95B, § 2-316A (1971), amending MD. ANN. CODE art. 95B, § 2-316A (1964); MASS. ANN. LAWS ch. 106, § 2-316A (Supp. 1972), amending MASS. ANN. LAWS ch. 106, § 316 (1963).
125. The Magnuson-Moss Warranty—Federal Trade Commission Improvement Act, S. 356, 93d Cong., 1st Sess. (1973), which has passed the Senate three times, would increase the disclosure sellers must make to consumers in respect of excusable clauses and curtail their ability to disclaim. For an analysis of S. 356 by its sponsor see Mag-
which is the Code's solution, is an inadequate response to the problems defective products pose.

**CONCLUSION**

The three goals which courts have pursued in connection with risks of nonconformity are to protect bargains in respect of the location of these risks, to avoid concentrated losses should defects occur, and to improve the quality of products. These policies are complementary, if buyers are informed as to risk and avoidance costs, because when it will be in the interest of buyers to choose risk allocations which avoid loss concentrations, and to choose against risky products if substitutes exist, they will probably do so. Conversely, when buyers lack information as to risk and avoidance costs there will probably be few gains, and serious losses, from pursuing these policies. The central task, therefore, is to ascertain and cure information gaps. The preferable cure is to provide buyers with information, and allow them to bargain as regards risk allocations. This not only will maximize private choice, but will enable the courts’ other goals to be realized more satisfactorily than if risks are imposed on the sellers of uninformed buyers. But imposing risks on such sellers is still preferable to allowing the parties to bargain in ignorance. The state, however, has never identified information gaps in a systematic way; it has provided buyers with almost no information; and it has failed to impose risks in an intellectually coherent manner. There is therefore much to do, if private ordering is to make a substantial contribution toward resolving the problem of defective products.

Huson, *Federal Developments in Product Warranty Law*, 4 U.C.C.L.J. 279 (1972). See also AMERICAN ENTERPRISE INSTITUTE, CONSUMER WARRANTY PROPOSALS AND FTC AMENDMENTS (1971) (Legislative Analysis No. 14). This Act, however, aims too low. Its major object is to ensure that consumer buyers know when they are bearing risks of nonconformity. An uninformed buyer who knows only that, knows too little, for he remains ignorant of R, A(b) and the range and frequency of X. Should this Act pass, buyers will be as unable to make rational decisions about bearing, avoiding or shifting risks as they are now. Congress would be better advised either to ban exculpatory clauses in markets where uninformed buyers operate or preferably to address the information problem directly.