Mistaken Transfers and Profitable Infringement on Property Rights: An Economic Analysis

Peter K. Huber
MISTAKEN TRANSFERS AND PROFITABLE INFRINGEMENT ON PROPERTY RIGHTS: AN ECONOMIC ANALYSIS

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"The most obvious comment about the American law of restitution is that it lacks any kind of system."

I. INTRODUCTION

The "law of restitution" could be defined as the set of rules that deals with the noncontractual shifting of wealth. Unlike rules of tort law, restitutional rules do not focus on the loss to the plaintiff, but on the "unjust enrichment" of the defendant.\(^1\) Examples of cases in which such rules are applied probably are more informative than an abstract definition. The law of restitution is, for example, concerned with (a) the mistaken payment of money to an ostensible creditor, (b) the case of the physician giving first aid to an accident victim, and (c) the case of A wrongfully acquiring B's goods and selling them to C.

The law of restitution traditionally has been dominated by considerations of justice, equity, and other open-ended concepts.\(^3\) In this respect American law, however, does not seem to be very different from that of most continental European systems. The legal frameworks of restitution provided by those systems are based on the concepts of "cause,"

\(^1\) J. Dawson, Unjust Enrichment—A Comparative Analysis 111-12 (1951).
\(^2\) Cf. Dawson, supra note 1, at 3-8; I G. Palmer, The Law of Restitution 1-6 (1978). This definition seems broad enough to include restitutional contract remedies (see Restatement (Second) of Contracts 158, 197-99, 379-77 (1979)). At the time when such a remedy is granted, the contract, although maybe still existent in other respects, can no longer serve as a justification for transfers that have already taken place. The meaning in which "law of restitution" will be used in this paper is, however, limited to the scope of application of the Restatement of Restitution (1937), and thus excludes contractual remedies.
"directness;" the meaning of "transfer;" and congruence of loss and benefit. The discussion of these concepts at times has risen to an almost metaphysical level.\(^4\)

Given this state of confusion and the lack of coherent and powerful explanatory themes, the law of restitution appears to be an attractive object of economic analysis. The rather small amount of literature\(^6\) explicitly dealing with restitutial issues is therefore surprising. The few writings that do apply tools of economic analysis are dedicated mainly to issues of officious intermeddling—the intentionally noncontractual transfer of benefits (example b). However, the restitutial rules dealing with mistaken transfers (example a)—the focus of this paper—seem to have been neglected.\(^7\) Another topic this paper addresses is located somewhere on the borderline between the law of restitution and torts: cases of conversion and trespass in which the converter (trespasser) derives profits from his infringement (example c).\(^8\) Although the latter cases traditionally have been analyzed from the deterrence perspective,\(^9\) they deserve some further consideration.

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4. This is perhaps the most accurate, although not entirely satisfactory, translation of the key concept of "Leistung" in the law of the German-speaking countries. The "classic" analysis of this concept can be found in Kötter, Zur Rechtsnatur der Leistungskondiktion, 153 Archiv für die civilistische Praxis [AcP] 193 (1954).

5. For a comprehensive discussion of the development of these concepts from Roman Law—with specific reference to the German Civil Code [BGB]—see D. Reuter & M. Martinek, Ungerechtfertigte Bereicherung 4-38 (1983); cf. J. Dawson, supra note 1, at 41-109.


7. The most recent economic analysis of restitutial rules by Professor Levmore, supra note 6, is based on four general themes: (1) valuation difficulties, (2) the search for the better bargainer, (3) wealth dependency, and (4) market encouragement. Although Levmore's analysis is aimed at explaining all of the law of restitution, its explanatory power still seems to be greatest for the problems of officious intermeddling. As far as Levmore's arguments are relevant to this paper's analysis, they will be referred to in the discussion of particular problems.

8. See Restatement (Second) of Restitution (Tent. Draft No. 2, 1984) 137-40; cf. 1 G. Palmer, supra note 2, at 50-53, for a critique of the doctrine of "waiver of tort," which has traditionally been applied to these cases.

This paper will first examine the preliminary issue, that being if and to what extent restitutional rules can be understood as a means of preventing (primary) allocative inefficiencies. Subsequently, the efficiency as well as the distributional consequences of rules dealing with mistaken money transfers and nonmonetary transfers will be analyzed. Finally, three alternative rules for the above mentioned infringement cases will be discussed. The rules analyzed will be taken mainly from American, Austrian, and German law.\textsuperscript{10}

II. The Allocative Efficiency of Noncontractual Transfers

The following analysis addresses the question of whether, and according to which criteria, a noncontractual transfer of benefits—including labor and other intangible goods—can be said to bring about an inefficient allocation of resources. The notion underlying this analysis can be formulated as follows: Usually contracts warrant the allocative efficiency of transfers—the parties would not agree to an exchange if they did not both believe that they would be made better off by its performance. Within the scope of the law of restitution, and thus in the absence of a contract, it seems possible that goods may be transferred from a higher to a lower valued user, which obviously leads to a utility loss. As far as noncontractual transfers may result in inefficient allocations, their ex ante prevention through an appropriate system of incentives—not the ex post correction of a misallocation in a particular case—could be an explanatory and normative theme for restitutional rules.

A. Initial Misallocations Cannot Be Corrected

1. Nonmonetary Transfers

Let us first consider the transfer of a benefit (chattels, services, information) under the assumption that the recipient can only "consume" the benefit, that is, the recipient can neither resell nor otherwise exchange it.\textsuperscript{11}

\textsuperscript{10} For a similar approach in a different context see Shavell, Suit, Settlement, and Trial: A Theoretical Analysis under Alternative Methods for the Allocation of Legal Costs, 11 J. Legal Stud. 55 (1982).

\textsuperscript{11} The assumption of nontransferability is made in order to focus the analysis on the "primary" allocative consequences of transfers, i.e., those brought about by the transfer as such and not those due to consequential transfers by the recipient. The assumption will be relaxed in section II B.
In general, such a transfer does not meet the criterion of Pareto superiority. While the recipient of a shipment of coal, for example, is made better off, the mistaken transferor is made worse off, since he presumably attributes a positive value to the coal, which will usually equal its market value. There are of course exceptions: A Pareto improvement can be achieved, if (a) the transferor considers the good at issue a positive nuisance while the recipient finds it desirable or is at least indifferent towards its acquisition; or (b) the transferor is indifferent towards its loss (e.g., when providing a service without incurring opportunity costs), whereas the recipient finds it desirable; or (c) the utility functions of transferor and recipient happen to be interdependent. Although one may conceive of such situations, they usually will not give rise to restitutitional claims. Therefore, these situations will not be considered any further in this analysis.

As a next step, one might examine the efficiency of the transfers in question under the Kaldor-Hicks criterion. The deficiencies of this criterion, already pointed out in the literature, become apparent in the context of restitution. For example, consider the mistaken transfer of coal from a rich coal dealer to a poor student, who is thereby enabled to increase the temperature in the student's room. In this situation the monetarized utility gain of the recipient probably is not sufficient to...

12. A transfer is Pareto superior if it makes at least one person happier, better off, or more satisfied without making another person less happy or less satisfied. If society has distributed its goods and services such that no transfer will make someone more satisfied without reducing the satisfaction of others, then this situation is termed Pareto-optimal or Pareto-efficient. V. Pareto, Manuel d'Economie Politique (1909); E. Mansfield, Microeconomics, Theory and Application 440 (4th ed. 1982).

13. A Pareto improvement results from a Pareto superior transfer. Such a transfer is a movement towards a Pareto optimal condition.


15. A utility function is a theoretical construct used by economists to explain why individuals purchase and consume various quantities of goods and services. The utility functions of individuals A and B will be interdependent when, for example, A derives satisfaction from B's consumption of a good received by him from A. This is the economic explanation of altruistic behavior. See generally, E. Mansfield, supra note 12, at 51-77; see also supra note 13.

16. According to the Kaldor-Hicks criterion, a transfer should be made if the gainers gain more than the losers lose. If the gainers compensate the losers for their loss, then the gainers gain, the losers remain as they were, and there is a net increase in overall happiness or satisfaction. See Kaldor, Welfare Propositions and Interpersonal Comparison of Utility, 49 Econ. J. 549 (1939); E. Mishan, Economic Efficiency and Social Welfare 4-5 (1981).

compensate the transferor for his loss of utility, that is, the utility of the proceeds of a sale to a third party. Hence, the transfer would be inefficient according to the Kaldor-Hicks criterion. This impossibility of compensation may, however, be due to two conceptually distinct reasons. The coal may not be very useful to the recipient because the student is almost indifferent towards the higher and the lower room temperature. Alternatively, the change in the temperature may make a great difference, but the student would not have had the money to acquire the coal at its market price. Whereas the first reason for Kaldor-Hicks inefficiency corresponds with an intuitive notion of "social waste," the second is a consequence of the somewhat troublesome distributional concept\(^\text{18}\) of reinforcing differences in the initial distribution of wealth, which is implied by the Kaldor-Hicks test.\(^\text{19}\)

One should therefore prefer an efficiency criterion that permits a distinction between the two phenomena described above. Such a criterion could be stated as follows: A transfer is inefficient, if the potential transferor could bribe the potential recipient into renouncing the transfer and still be better off.\(^\text{20}\) To put it another way, a transfer is inefficient if there is an alternative transfer that would lead to an allocation Pareto superior to the one actually achieved.\(^\text{21}\) The difference between this criterion and the Kaldor-Hicks criterion can be illustrated by the hypothetical previously mentioned. Supposedly, the coal dealer would derive the same amount of utility from either the coal he transfers or an amount of money equalling its market value. Therefore, the coal dealer would be indifferent as to which good was mistakenly transferred. If the student could use the money in a way from which she derives more utility than from the use of the coal, the hypothetical transfer of the money would lead to an allocation that is Pareto superior to that brought about by the transfer of coal. In other words, an amount smaller than

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\(^{18}\) Whereas (normative) efficiency analysis is concerned with maximizing the "size of the pie" (social income, or the utility of the goods produced within a society), distributional concepts refer to the various ways of "slicing the pie" (of assigning shares of the totality of goods to individuals or groups). Distributional concepts are based on considerations of justice and equity and, unlike the results of efficiency analysis, cannot be verified or falsified. See A.M. Polinsky, An Introduction to Law and Economics, 7-10, 115-17 (1983).

\(^{19}\) See Kronman, supra note 17.

\(^{20}\) This is the criterion suggested by Hicks, The Valuation of Social Income, 7 Economica 105-24 (1940). In the text that follows it will, however, not be referred to as the "Hicks criterion" in order to avoid confusion with the Kaldor-Hicks criterion.

Although the former criterion is flawed by certain ambiguities (see Scitovsky, supra note 17; J. O'Connell, Welfare Economic Theory 49-50 (1982)), it seems sufficiently precise for the analysis in sections II and III of this paper.

\(^{21}\) Unless otherwise indicated, this efficiency criterion will be used throughout the paper.
the market value of the coal would have been sufficient to bribe the recipient into renouncing the transfer.

If, however, the student would have bought the coal anyway had she been given the equivalent of its market value, in other words, if coal happens to be her "marginal consumption good," the transfer would appear neutral according to the criterion used in this paper (that is, the dealer could not have bribed the student and have been any better off than after the actual transfer). However, according to the Kaldor-Hicks criteria, it would still be classified as inefficient.

2. Money Transfers

The difference just explained is probably of more significance in the case of monetary transfers, assuming that the money transferred is used exclusively for purposes of consumption. Assuming a diminishing marginal utility of money, every money transfer is Kaldor-Hicks inefficient. Compensating the transferor for his utility loss would require the full amount of money transferred, while the recipient's utility gain would always fall short of this amount. The existence of this phenomenon—although its extent differs—is independent of the relative wealth of the parties.

According to the efficiency criterion used in this paper, the transfer of money is always neutral from the efficiency perspective, since a rational recipient will use the money received to acquire her marginal consumption goods. A bribe that leaves the transferor better off than he would have been with the actual transfer is impossible.

22. Under the assumption of perfect divisibility of goods, a person's marginal consumption good is that which the person would buy and consume if she were given an additional unit of money. Without this assumption the concept, less precisely, refers to those goods that a person would buy and consume if her income were increased by a given amount (in our context, by the mistaken money transfer).

23. If one does not make this assumption, the application of the Kaldor-Hicks criterion becomes trivial. The compensation required to show Kaldor-Hicks neutrality would consist in the inversion of the initial transfer. The same would be true in the coal example.

24. Marginal utility is the extra satisfaction or happiness that an individual derives from the consumption of one more unit of a commodity or good, when the level of consumption of all other goods and services is held constant. The theory of diminishing marginal utility is that as one consumes more and more of a good or commodity (the consumption of other goods and services being held constant) the amount of satisfaction or happiness derived from the consumption of each additional unit of a commodity tends to decline. E. Mansfield, supra note 12, at 52, 53.

25. Another factor that makes the Kaldor-Hicks criterion suspect as a guideline for explaining or framing a system of restitution is that the inverse transfer from the recipient to the transferor would also have to be termed inefficient.

26. To be sure, this statement refers to (primary) allocative efficiency. The second order efficiency ramifications of money transfer will be dealt with in section III.
B. Initial Misallocations Can Be Corrected

Let us now assume that the nonmonetary good transferred can be resold or otherwise exchanged. A recipient could face three types of situations:

(1) If the good received belongs to the category of goods that the recipient would have acquired even without the increase in wealth derived from the transfer in question, she would, of course, keep it.

(2) The recipient may have received her marginal good. Again, she would not resell or otherwise exchange it.

(3) In any other case, a rational recipient would try to achieve a utility gain by either directly or indirectly exchanging the good received for her marginal good.

If one considers the transfer to the recipient and the subsequent exchange as a unit, the move from the initial to the final allocation is neutral according to the efficiency criterion previously suggested.\(^{27}\) Thus, under the assumption of zero transaction costs this outcome would not be any different from that in the case of an initial money transfer. In a world of positive transaction costs, however, the exchange required to establish the final allocation, which usually consists of the sale of the good received and the purchase of the marginal good, may cause substantial inefficiencies. This is especially true of the first transaction. The recipient rarely will be in the business of selling goods of the kind in question. Only if this were the case, the marginal costs of resale would be negligible. It seems much more likely that the recipient is a consumer in relation to the good received and will have to incur non-negligible transaction costs.\(^{28}\)

One might argue that if resale at the market price requires considerable efforts, a rational recipient would rather reduce his price limit. Under the efficiency perspective, this would lead to a neutral transfer of wealth from the recipient to the third-party purchaser. A substantial reduction of the price would, however, invite the intervention of agents who value the good at less than its market price. This would necessitate one or more consequential exchanges to establish finally an efficient allocation. Thus, even if the transaction costs caused by the recipient's first sale are relatively low, these costs may add up to a considerable amount if one considers consequential exchanges.

Another possible and equally rational reaction of a recipient facing transaction costs is to keep the benefit received, even though there is

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27. To be more precise, this neutrality also presupposes that the final purchaser of the good values it as highly as the initial owner.

a good with the same market value from which he could derive more utility.\textsuperscript{29} The inefficiency thus created resembles the case in which the recipient is absolutely unable to exchange the benefit initially received.

The allocative effects of a noncontractual transfer of goods could therefore be summarized as follows. The transfer of money is always neutral from an efficiency perspective. Under the conditions described above, the noncontractual transfer of nonmonetary goods (including services) may replace a contractual transfer and thereby create an efficient allocation of resources.\textsuperscript{30} If no such replacement occurs and there is no opportunity to exchange the goods received, a nonmonetary transfer will lead to a permanently inefficient allocation. Thus, as long as the ex ante probability of the latter case is greater than zero, a reduction in the number of noncontractual transfers of nonmonetary goods will increase allocative efficiency.

This difference between monetary and nonmonetary, exchangeable and nonexchangeable, benefits has implications for a positive as well as a normative economic analysis of restitutional rules. Under the positive perspective this analysis predicts—other conditions such as administrative costs being equal—a different restitutitional treatment of allocatively distinguishable types of transfers (e.g., money transfers as opposed to services), and under the normative perspective the analysis demands such a differentiation where rules of restitution do not sufficiently reflect the allocative features of transfers. The following section will draw on this distinction, but will also apply other explanatory themes.

\section*{III. The Economics of the Law of Mistaken Transfers}

\subsection*{A. Money Transfers}

The contexts in which mistaken money transfers occur are varied.\textsuperscript{31} Consider first a contractual context. Suppose that an employment contract, apart from a fixed monthly salary, provides for a system of

\begin{thebibliography}{9}
\bibitem{}\textsuperscript{29} Cf. Goetz & Scott, supra note 28, at 344-45.
\bibitem{}\textsuperscript{30} One might, at first blush, conclude that under these circumstances the noncontractual type of transfer should, since it might save transaction costs, be preferred to the contractual. This effect is, however, as the discussion of profitable conversion in section IV will show in more detail, usually outweighed by the administrative costs a noncontractual transfer would cause.
\bibitem{}\textsuperscript{31} See, e.g., Brine v. Paine Webber, Jackson & Curtis, Inc., 745 F.2d 100 (1st Cir. 1984) (dividends paid to brokerage firm rather than to decedent’s estate); Shipping Corp. of India v. Sun Oil Co., 569 F. Supp. 1248 (E.D. Penn. 1984) (mistaken demurrage payment to vessel owner); City of College Park v. Eastern Airlines, Inc., 250 Ga. 741, 300 S.E.2d 513 (1983) (taxes mistakenly paid by airline to one municipality while owed to another); Home Ins. Co. v. Honaker, 480 A.2d 652 (Del. 1984) (overpayment by insurer who believed that coverage limit was $25,000 instead of $10,000.)
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bonuses. The employer mistakenly pays the Christmas bonus twice. The employee regards the additional money as overtime pay and spends it.\(^{32}\)

Now consider a noncontractual context. A is injured in a collision with a car that he believes was operated by one of B’s servants. B shares this belief and makes a payment in settlement of the assumed liability.\(^{33}\) When B discovers his mistake, A has already spent the money to cover his medical expenses.\(^{34}\)

The preceding section has shown that mistaken money transfers do not create allocative inefficiencies. This, of course, assumes that one accepts the efficiency criterion adopted in this paper. This efficiency may provide guidelines for evaluating alternative rules dealing with such transfers. As further analysis will show, usually parties are not indifferent towards the occurrence of such transfers and their effect on the parties’ wealth. Therefore, assuming that all parties behave rationally, different restitutional regimes will lead to different levels of expenditures to avoid such transfers. These expenditures, which are incurred to avoid private costs to the parties, constitute social costs without corresponding social benefits. The incentives provided by alternative rules may also lead to a difference in the frequency of mistaken transfers, the number of cases litigated, and ultimately in total administrative costs.\(^{35}\) Furthermore, as in every other field of law, differences in the complexity of restitutional regimes lead to differences in the administrative costs per case litigated.

1. **Unlimited Restitution versus No Restitution**

In order to establish a framework for further analysis, let us first consider two extreme rules: (1) restitution in case of mistaken money transfers is always granted ("unlimited restitution"),\(^{36}\) and (2) the mistaken transferor can never reclaim his money ("no restitution").\(^{37}\)

\(^{32}\) This example will repeatedly be referred to in this section.

\(^{33}\) See Restatement of Restitution § 19 illustration 1 (1937).


\(^{35}\) One might argue that the potential differences in administrative costs dominate those in the expenditures on transfer avoidance and other efficiency effects and that an efficiency-oriented analysis of rules of restitution might therefore—without running the risk of major errors—just as well be based on a comparison of administrative costs only. This may be the case. But, in the absence of relevant empirical data supporting this point, to include the parties’ levels of care and other efficiency effects of restitutional rules, which will be revealed by further analysis, seems worthwhile.

\(^{36}\) This rule seems to be laid down in Allgemeines Bürgerliches Gesetzbuch [ABGB], Austria, § 1431. Even early commentators, see, e.g., 4 F. Zeiller, Commentar über das allgemeine bürgerliche Gesetzbuch 157 (1813), have, however, recognized exceptions to this rule that are not mentioned in the code.

\(^{37}\) This seems to be the American rule in case of mistaken tax payments; see Levmore, supra note 6, at 93-95.
Under a regime of no restitution the fact that the recipient may not be entitled to the payment received should not influence his behavior. In the contractual context mentioned above, the employee would treat the mistaken bonus payment as money to which he is actually entitled. Thus, he would not make any expenditures to determine his actual entitlement before disposing of the money.\(^{38}\)

The transferor, on the other hand, knows that every mistaken payment will be lost, assuming the recipient does not return it voluntarily.\(^ {39}\) Therefore, the transferor will incur transfer avoidance costs. The employer in the example may choose to invest in control mechanisms in his accounting department. In any event, the employer will invest only to the level in which his increasing marginal costs equal the diminishing marginal reduction of the risk of a mistaken payment.\(^ {40}\)

A general bar to restitution is, however, characterized by another effect. It creates a strong incentive for recipients to induce mistakes on the part of transferors. Transferors in turn are induced to take preventive measures against such influence. These expenditures, although individually rational, constitute social costs, but provide no social benefits. At a minimum, any realistic legal system should allow restitution if the recipient has defrauded or otherwise made intentional misrepresentations to the transferor.\(^ {41}\) As one might expect, given this exception, it is very doubtful that the administrative costs caused by a regime of no restitution would be minimal. Furthermore, the exception could not eliminate completely the incentives just described. A recipient who is merely in doubt about his entitlement would still have a strong incentive not to disclose his doubts, thereby influencing the other party's decision to make the transfer.

If restitution is always granted, the recipient faces the risk that the transferor was mistaken. This risk does not materialize upon acceptance of the payment, which is absent if the money is transferred to an account or if the recipient merely keeps the money. The recipient,

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38. This indifference on the recipient's part has to be slightly qualified if one considers the possibility that even under a regime of no restitution, in case of mistaken transfers, restitution would still be granted in cases where the recipient defrauds the transferor or otherwise induces the latter's mistake (see infra note 40 and accompanying text). These exceptions provide an opportunity to litigate an "ordinary" mistake case by alleging the facts necessary to justify a claim of restitution. The recipient therefore faces a positive probability of incurring litigation costs if he is not entitled to the payment received.

39. In our example, one reason for voluntary restitution could be the employee's attempt to maintain a frictionless relation with his employer.

40. Mistakenly withholding a payment may also be costly. The (potential) transferor will usually be liable for any delay in the payment. In the particular example stated above, the employee may infer "bad faith" on the employer's part, which may affect the employee's productivity.

41. See Restatement of Restitution § 28 (1937).
however, incurs a "loss" if he spends the money received and later is called upon to make full restitution. This loss can be monetarized by comparing the purchase price of the additional goods acquired (as a result of the increase in the recipient's supply of money) with the recipient's actual willingness to pay for the goods in the absence of the mistaken money transfer. This difference in utility constitutes the recipient's loss since he would prefer having the goods he cannot purchase later because of his restitutional obligation to the goods he purchased earlier, over and above his usual consumption. A mitigation of the recipient's utility loss is possible if he can obtain a loan when restitution is required. This will allow the recipient to spread his reduction of consumption over the periods of repayment. The costs of entering into such an agreement with a third party again would constitute social costs with no corresponding social benefits. Therefore, before disposing of the money received, the rational recipient will acquire further information about his entitlement; he will continue to acquire this information until his marginal information costs equal the marginal decrease in the value of the risk described above.

Let us now examine the potential transferor's response to a regime of unlimited restitution. At first glance, one might argue that since the transferor faces no losses in case of a mistake, he will have no incentive to acquire additional information concerning the existence of a duty to pay, provided the information can be acquired costlessly or at a lower cost after the payment has been made. In a realistic setting, however, this argument is without merit. First, even under a regime of unlimited restitution, the transferor has to incur costs in order to reclaim his money, that is, either the costs of negotiating with the recipient or litigation costs. Secondly, the transferor also faces the possibility that

42. The analysis assumes that the amount of money available to the recipient for consumption and the recipient's marginal utility of money are constant over time.

43. This condition will, as a practical matter, and in the absence of substantial obstacles to the recipient's search, be met when he has determined beyond a "reasonable doubt" either that he is entitled or that such an entitlement does not exist. Of course, there is also a risk involved in precipitately returning the money to the transferor, since the latter may be insolvent when the recipient discovers his mistake.

As the risk described in the text is inversely related to the recipient's wealth, the same should be true of the level of care the recipient will choose. The former effect will, however, be outweighed by the fact that the same expenditures on care will result in a greater loss of utility to the "poorer" than to the "richer" party.

44. One might ask why a recipient would ever contest a restitutional claim under a legal regime of unlimited restitution. The answer seems obvious. The recipient could, given the existence of judicial error, allege with a positive probability of success that a contractual basis for the transfer exists. This shows a general problem of the reduction of administrative costs in the law of restitution by simplifying its rules. Since contract law provides a rather complex borderline to the rules dealing with noncontractual transfers, abolishing borderlines
the recipient will be insolvent at the time the mistake is discovered.\textsuperscript{45} Thus, the transferor has a strong incentive to avoid mistaken transfers despite the fact that the applicable rule seems to put the whole restitutional burden on the recipient.

This creates a certain asymmetry in the consequences of the two extreme restitutional regimes analyzed thus far. The recipient under the rule of no restitution has no, or at most, a minimal incentive to incur information costs to determine his entitlement. This causes the total transfer avoidance costs to be lower under a no restitution regime than under a regime of unlimited restitution. The latter rule, however, should be preferable since it does not create incentives for the recipient to induce mistaken transfers nor does it give transferors an incentive to incur expenditures to prevent induced transfers.

2. A Simple Change of Position Defense

Although a regime of unlimited restitution would be preferred to a regime refusing all restitution, this does not compel the conclusion that the unlimited restitution scheme is superior to a compromise solution, that is, a regime that allows restitution under some circumstances. The following analysis will examine a more moderate restitutional approach. The rule can be stated as follows: Restitution is granted if the recipient is still in possession of the money transferred, and it is barred if he has "changed his position" without knowledge of his nonentitlement.\textsuperscript{46}

within the law of restitution may not bring about the desired effects. A decrease in intrarestitutional borderline cases may be compensated by an increase in restitution-contract borderline cases.

45. This risk may be smaller if there is a long-term contractual relationship between transferor and recipient. This allows the transferor to deduct the overpayment from payments he must make in later periods. But even if such a long-term relationship exists at the time of the transfer, it may be terminated by the time the transferor detects his mistake, making deductions impossible.

46. For a general discussion of the change of position defense see 3 G. Palmer, supra note 2, at 510-29 (1978). The pertinent English law is ably discussed in R. Goff & G. Jones, The Law of Restitution 691-99 (3d ed. 1986). American law is not particularly clear about the availability of this defense in consumption cases. Restatement of Restitution, § 142 comment b (1937), restricts it to cases where "expenses were incurred or gifts made because of the receipt of the money and the payment was of such size that considering the financial condition of the payee it would be inequitable to require repayment." Later case law usually denies restitution when the expenses in question were caused by the mistaken payment. See Sawyer v. Mid-Continent Petroleum Corp., 236 F.2d 318, 6 Oil & Gas Rep. 1207 (10th Cir. 1956); Maricopa County v. Cities & Towns of Avondale, 12 Ariz. App. 109, 467 P.2d 949 (1970); Home Ins. Co. v. Honaker, 480 A.2d 652 (Del. 1984); Moritz v. Horsman, 305 Mich. 627, 9 N.W.2d 868 (1943); Amalgamated Ass'n of St. Elec. Ry. & Motor Coach Employees of America, Div. 998 v. Danielson, 24 Wis. 2d 33, 128 N.W.2d 9 (1964); cf. E.R. Squibb & Sons v. Chemical Found., 93 F.2d 475, 478 (2d Cir. 1937), where the defendant, a charitable corporation, spent mistaken royalty payments on chemical and medical research; the court of appeals nevertheless granted full restitution.
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For simplicity, the analysis will be restricted to the case where the recipient has disposed of the money by purchasing consumption goods.\textsuperscript{47} It will further be assumed that the change of position defense is available unless the recipient has knowledge of his lack of entitlement.\textsuperscript{48}

The information costs the potential transferor incurs to avoid mistaken transfers are determined by his expected loss in case such a transfer occurs. If one assumes a positive probability, but lower than one, that a recipient will have changed his position when the mistake is detected, the transferor's optimal level of care will be lower than under a rule that generally bars restitution. However, it will be higher than under a rule of unlimited restitution, where change of position is not available as a defense.

The recipient's level of care prior to disposing of the money should be equal to that induced by a no restitution regime; as long as the recipient has not disposed of the money, he generally suffers no loss if he has to turn it over to the transferor-claimant. If he already has spent the money, he no longer faces a restitutional obligation, because of the change of position defense.

There are significant differences between the change of position rule and the two regimes thus far analyzed. First, informational problems may result in the unnecessary expenditure of litigation costs. Under a rule that considers change of position as a defense, the recipient who actually changes his position is likely to incur litigation costs if, at the time of suit, the transferor lacks reliable information about the facts on which the recipient's defense is based. Of course, in the hypothetical given above, the employee could just tell the employer that he has changed his position. But, given the employee's incentive to minimize his restitutional obligation, such a statement would not be very credible from the employer's perspective. This information problem does not exist under either of the two regimes previously analyzed.

More importantly, the change of position rule may create a moral hazard on the recipient's part. The defense is barred only in case of the recipient's knowledge of the transferor's mistake. The defense is available if the recipient is merely in doubt about his entitlement to the

\textsuperscript{47} For a different application of the change of position defense see, e.g., Equilease Corp. v. Hentz, 634 F.2d 850 (5th Cir. 1981) (crediting third-party's account with payment mistakenly made by plaintiff).

\textsuperscript{48} This is the regime laid down in Bürgerliches Gesetzbuch [BGB], W. Germ., § 818 (3) and § 819 (1); see D. Reuter & M. Martinek, supra note 5, 631-33 (1983); cf. Restatement of Restitution § 69 (3) (b) (1937), which provides: "Change of circumstances is not a defense if . . . the change occurred after the recipient had knowledge of the facts entitling the other to restitution and had an opportunity to make restitution."

payment. Under these conditions the recipient faces a positive probability that the transferor will reclaim the payment. This would deprive the recipient of the utility he could derive from spending the money. From the recipient’s perspective, the transferor’s detection of his mistake is a risk that can be reduced by spending the money received as soon as possible. Therefore, the employee in the example may treat a doubtful payment differently than one to which he is entitled. He may substitute consumption for durable goods or savings, both of which would leave the employer’s claim intact. Or, he may spend the money for goods that are readily available, but from which he derives less utility than from his marginal consumption goods, which are not so readily available. Thus, under the restitutional regime at issue, rational behavior by the recipient may lead to an inefficient allocation of resources.

Whether the recipient actually engages in such behavior depends on the probability he attributes to a lack of entitlement. Early spending also involves the risk that the recipient actually was entitled to the money received and therefore could have spent it later on higher utility goods. A rational recipient will balance this risk against the expected utility gain from spending the transferor’s money before the latter realizes his mistake.

3. The Change of Position/Contributory Fault Rule Defined

One possible way to eliminate the moral hazard problem just described is to restrict the change of position defense by using a contribu-

49. To be sure, a court in such cases, by applying an objective rather than a subjective standard, may infer the recipient’s knowledge from other circumstances. This device is used by German Courts, although without reference to moral hazard, to mitigate the rule of BGB, W. Germ., § 819 (1); see Judgment of September 18, 1961, Bundesgerichtshof [BGH], W. Germ., 35 BGHZ 356, 361; Judgment of May 27, 1977, Oberlandesgericht Hamm, W. Germ., 30 NJW 1824 (1977). In most of the literature, however, a subjective test is applied; see D. Reuter & M. Martinek, supra note 5, at 642-43.


51. For a definition of marginal consumption goods, see supra note 22.

52. The recipient may also pay excessive prices for his marginal goods if he does not take the time to conduct an optimal search. The efficiency implications of this effect are less obvious. If the price the recipient pays is still below the reservation price that would have prevailed if he had been certain of his entitlement, it only amounts to a neutral shifting of wealth; otherwise, if the price paid exceeds the hypothetical reservation price, it leads to a misallocation of resources.

53. Most probably, however, the recipient will not try to acquire further information to reduce this risk, since a court might infer knowledge on the recipient’s part from such a search, even though it has not led to subjective knowledge of the lack of entitlement.
It is, however, necessary to be more specific about the meaning of fault in the context of restitution. One possible meaning of fault could be that used in tort law; analysis of this definition, however, leads to the conclusion that the tort law test is not the best one for the law of restitution. At least conceptually, it would of course be attractive to adopt the highly operational Learned Hand test. If applied in its refined marginal form, a liability rule based on this test minimizes total social costs because the defendant in tort faces a burden that equals the primary social costs caused by his act. Under the rule of restitution at issue, however, the burden put on the recipient—the difference between the monetarized utility of the payment received and its face value—generally exceeds the social costs his act causes. To be more precise, the social costs of the recipient’s disposing of the money received mainly consists of an increase in administrative costs (an arrangement out of court will be less likely if the money has been spent and, for the same reason, litigation will become more complex) and in the costs of a loan agreement with a third party if the recipient borrows money to discharge his restitutional obligation. Thus, unlike in tort law, a fault test referring to individually cost-minimizing behavior does not implicitly lead to social cost-minimization in the law of restitution. A fault test that requires the recipient to acquire information about his entitlement to the level justified by the restitutional burden he faces may generate an incentive to be excessively cautious. Nevertheless, in the absence of an alternative operational concept of fault, the following analysis will be based on the definition just given: The recipient is held to be at fault if he fails to incur the information costs that are individually optimal.

4. Contributory Fault versus Comparative Fault

Before contrasting the efficiency of the rule just described with the rules previously analyzed, it will be compared with a similar, though

54. Within its scope of application (see infra note 68 and accompanying text) change of position in Austrian law is generally restricted to cases where the recipient is not at fault; see Judgment of July, 1969, Oberster Gerichtshof [OGH], Austria, 92 Juristische Blatter [JBI] 47 (1970); P. Huber, Wegfall der Bereicherung und Nutzen 138 (1988).

55. See United States v. Carrol Towing Co., 159 F.2d 169, 173 (2d Cir. 1947).


57. The alternative to the rule at issue would be a restitutional regime that equates the burdens imposed on the transferor and the recipient with the social costs they cause; see section V of the text.

58. Just like the potential tort-feasor under the Learned Hand test who acted negligently but did not cause any harm, the careless recipient is, however, not subject to a penalty if it is determined ex post that he is actually entitled to the money received.
somewhat more complex, legal regime: The defense of change of position is available only if the recipient was less at fault than the transferor. This restitutional rule resembles a comparative fault tort rule insofar as the availability of the remedy depends on a comparison of each party’s degree of fault. However, it is different insofar as the measure of the remedy is limited to the alternative “all or nothing”; that is, the transferor is either granted full restitution or no remedy at all, whereas the tort claimant, depending on his own degree of fault, may also be awarded partial damages.

Does this rule bring about more efficient results than the change of position/contributory fault regime? First of all, the rule at issue seems to share one flaw of the corresponding tort rule: It is unclear how the comparison of fault should be operationalized. This is true even if one agrees on the basic definition of fault given above, that definition being that the transferor is at fault if he did not invest to prevent the transfer up to the level justified by his expected error costs, and the recipient is at fault if he did not incur justified costs to avoid the disposition of money to which he is not entitled. Under the realistic assumptions that (a) the applicable standard requires that the parties choose different absolute levels of care and/or (b) the parties’ costs of care differ, the question arises whether absolute or relative deviations from this standard should be compared or whether the comparison should be based on the marginal productivity of investments at the insufficient level chosen by transferor and recipient.

The efficiency analysis of the restitutional rule at issue very much resembles that of a contributory fault rule. If the transferor assumes rational behavior on the recipient’s part (that is, if he assumes that no recipient will ever be at fault), in order to minimize his losses, he will choose his individually optimal level of care. This is the same level he would choose under a contributory fault regime. The same is true of the recipient. However, if the recipient expects transferors to be careless, it is worthwhile for him to lower his level of care while still being more careful than the transferor. Such behavior creates an incentive for trans-

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59. See Restatement of Restitution § 142 (2) (1937): “Change of circumstances may be a defense . . . if he [the recipient] was no more at fault for his receipt, retention or dealing with the subject matter than was the claimant.”


61. One possible conceptualization of comparative fault sometimes used in tort law—transforming comparative fault into comparative causation; see, e.g., Murray v. Fairbanks Morse Beloit Power Systems, Inc., 610 F.2d 149, 159-61 (3d Cir. 1979); Duncan v. Cessna Aircraft Co., 665 S.W.2d 414, 427 (Tex. 1984)—does not seem very helpful in a restitutional context, where one party causes social costs by transferring a benefit and the other party by disposing of it.
ferors to raise their level of care marginally in order to be deemed more careful than recipients. In turn, this induces recipients also to be marginally more careful. Equilibrium is reached only when both parties choose their individually optimal levels of care. Thus, the parties' total costs of care should be equal to those under a contributory fault regime.

The choice between the two rules should depend on their relative administrative costs. Since the levels of care should be the same under either fault regime, so should the absolute number of mistaken transfers and the number of litigated cases in which the recipient's change of position is at issue. Thus, the major difference between the two rules consists of the introduction of two additional legal issues by the comparative fault regime, transferor's fault and the parties' relative degree of fault. As it seems reasonable to assume that the administrative costs caused by a rule are positively correlated with the number and complexity of legal issues to be considered, the contributory fault rule should be favored from an efficiency perspective. This preference is reinforced by the fact that the comparative fault rule suggested above does not offer the flexibility in the measure of the remedy that might make a comparative fault rule in tort law preferable for distributional or "other justice" reasons.

5. Change of Position/Contributory Fault versus Unlimited Restitution

The remaining issue seems to be whether the preference for the contributory fault rule also holds against a rule that always grants restitution. The costs of care incurred by the recipient should be the same under both rules since he passes the fault test exactly when he chooses the level of care he also would choose if no change of position defense were available. The transferor's expenditures, however, should be higher under the change of position rule, since he has to face additional losses in the cases where change of position is an available

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63. See R. Posner, supra note 62, at 90 n.3.

It is worth mentioning that the Restatement's comparative fault approach seems to be converted into its opposite by a caveat which provides that § 142 (2) and (3) are not meant to bar the defense of change of position in cases where the recipient is more at fault than the claimant. This raises the question of why comparative fault has been introduced in the first place. Considering the language of the caveat and the illustration given, it seems plausible to argue that this exception should only refer to cases where the recipient's fault is slight.
defense. More importantly, the administrative costs caused by a restricted change of position defense should be considerably higher than those of the simpler rule of unlimited restitution. Can the change of position/contributory fault rule be defended despite these inefficiencies?

First of all, there could be distributional justifications. From a general perspective, when compared to a regime of unlimited restitution, the change of position/contributory fault rule seems to shift all those monies, the disposition of which could not be avoided by due care, from transferors to recipients. This outcome does not appear to be a sensible distributional goal. Transferors and recipients do not seem to constitute sufficiently homogeneous groups to form the target of any coherent general distributional policy. If the change of position rule were adopted, one would expect the restitutional burdens and benefits to be randomly spread between such potential target groups.

A closer look at the cases in which the change of position defense is actually available suggests a different analysis. One might, in order to isolate a coherent target group, limit the availability of the defense to cases where full restitution would cause a much greater hardship to the recipient than a denial of restitution would cause to the transferor. The real problem seems to be the practical implementation of such a test. For this purpose one would not necessarily have to substitute case-by-case considerations for a general rule since one could identify abstract groups of cases in which the above mentioned condition typically is met. For example, the change of position defense could be made available to employees who have received excessive payments from their employer and to persons who have received excessive alimonies. However, an analysis of pertinent decisions shows that such groups of cases, once created, tend to expand over time creating serious borderline problems

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65. This would be true in cases where the recipient's error about his entitlement was ''unavoidable,'' given the relevant standard of care.
66. Cf. A.M. Polinsky, supra note 18, at 111.
67. See A. Flessner, Wegfall der Bereicherung - Rechtsvergleichung und Kritik 131-35 (1970); W. Wilburg, Die Lehre von der ungerechtfertigten Bereicherung 154-55 (1934). One could, of course, object to such a test for the reason that it basically turns on an implicit interpersonal comparison of utility between transferor and recipient. Such comparisons are generally rejected when carried out explicitly (see, e.g., Bergson, A Reformation of Certain Aspects of Welfare Economics, 3 Q.J. Econ. 310 (1938)). Still, if only ''obvious'' cases, characterized by large differences in the parties' wealth, pass the test, most of the troublesome issues conceptually inherent in such a comparison will not arise.
68. This is the basic approach taken by the Austrian Supreme Court. See, e.g., Judgment of April 23, 1929, OGH, Austria, 11 Entscheidungen in Zivilsachen [SZ] No. 86; Judgment of December 9, 1931, OGH, Austria, 13 SZ No. 262.
and costly litigation. This probably would also be true if courts or the legislature adopted a case-by-case analysis.

The remedy to these problems seems to be the return to a generally available change of position defense, which, of course, covers all the groups of cases just described. As previously indicated, this solution might, however, make the defense available in cases which run contrary to the distributional goal, that is, cases where the transferor who is denied restitution would suffer a greater hardship than the recipient who would have to repay the full amount of money he received. But, is this objection of practical importance? One might certainly conceive of the case of a poor consumer who has by mistake paid the purchase price of a commodity to the wrong company. In such cases, however, it is unlikely that the recipient can establish that the mistaken payment has led to an increase in his expenditures and that this increase did not lead to an equivalent increase in the total value of his assets. As a general matter, the fact that the recipient actually has spent the money he received allows no inference concerning the transferor's wealth. However, it does seem to be a good indicator of the recipient's limited wealth and of the danger that full restitution will lead to considerable hardship on his part. Thus, the generally available change of position defense seems to be a fairly good approximation of the specific distribution-oriented solutions described above.

These distributional considerations are closely related to possible efficiency-based justifications for a change of position defense. As previously discussed, mistaken money transfers may cause social costs insofar as the recipient may have to enter into a loan agreement or a comparable credit transaction in order to discharge his restitutional obligation. A change of position rule avoids such transaction costs and seems to lead to an efficiency gain. One might, at first blush, raise the objection that granting restitution leads to an equivalent saving in transaction costs on the transferor's part. A transferor who would have been forced to borrow may no longer have to do so after receiving the recipient's restitutional payment. The previous analysis, however, indicates that recipients who have changed their position could be more likely to be dependent on the credit market than transferors. A change of position defense, therefore, should improve the efficiency of a rule of unlimited restitution. The same argument applies mutatis mutandis to the transaction costs the recipient may have to incur when realizing assets in order to discharge his monetary restitutional obligation.

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69. In a more recent decision (Judgment of June 13, 1978, OGH, Austria, 14 Zeitschrift für Arbeits- und Sozialrecht [ZAS] 170 (1979)), the Austrian Supreme Court deals with the issue whether the lessee of a gas station comes close enough to an employee so that the change of position defense applies; for a critical discussion of similar cases see P. Huber, supra note 54, at 148-57.
A second efficiency argument in favor of a change of position defense refers to cases where a contractual relationship between transferor and recipient exists, such as the employer-employee example. An employer confronted with a change of position defense will regard the overpayments he cannot recover as a cost of labor. In a competitive labor market, this cost will lead to a decrease in the employer's contractual payments.70 Thus, the change of position rule as compared to a rule of unlimited restitution operates like an implicit insurance contract. The deductions from the employer's regular payment resemble premiums, and the risk against which the employee is insured is constituted by the unforseen emergence of a possibly large restitutional obligation. Since it is fair to assume that employees are risk averse and that even small employers can insure themselves by accumulating the "premiums" of all their employees, the change of position defense should reduce social risk and thereby lead to an efficiency gain.71

6. Conclusion

The analysis of alternative rules for mistaken money transfers can be summarized as follows. The rule of no restitution and the simple change of position regime are fundamentally flawed by the moral hazards they create. The change of position/comparative fault rule is characterized by high administrative costs. The choice has to be between the rule of unlimited restitution and the change of position/contributory fault regime. From an efficiency perspective both rules have their advantages and disadvantages. In the absence of data concerning the magnitude of the relevant efficiency gains and losses, it is hard to determine which of them should be preferred. Distributional considerations justify a preference for the change of position/contributory fault regime.

B. Transfers of Nonmonetary Goods

1. Exchange of the Goods Received

The preceding analysis has shown that the mistaken transfer of nonmonetary goods leads to misallocations if the transferor attributes a higher value to the goods transferred than the recipient does. These misallocations need not be permanent. They can be overcome if the recipient is able to exchange the goods for goods from which he derives a higher degree of utility. In the absence of transaction costs, and in particular, with perfect information about the relevant market conditions,

70. See A.M. Polinsky, supra note 18, at 109.
this exchange is neutral from an efficiency perspective. In any realistic setting, however, the recipient would have to incur transaction costs. In other words, mistaken transfers of nonmonetary goods may lead to inefficiencies different from those caused by primary misallocations.\textsuperscript{72}

From an efficiency perspective, how should a system of restitution deal with cases where the recipient has exchanged the goods initially received?\textsuperscript{73} Basically, two different approaches are conceivable. First, the transferor's recovery could extend to the proceeds\textsuperscript{74} (the price realized, the nonmonetary goods received in exchange, or their value).\textsuperscript{75} Second, the transferor could always be granted restitution of the full value of his goods.\textsuperscript{76}

Consider the following hypothetical. A, an art dealer, wants to ship a fourteenth-century carved madonna to a customer who purchased it for $10,000 (its average value to a small group of collectors of medieval art). In order not to attract any attention, A does not put his name and address on the case. Because of a mistake of A's employee, the madonna is actually sent to B who has a name similar to that of A's customer. B regards the madonna as a present from his mother-in-law, who occasionally sends him religious objects of little value, although this particular present still seems unusual to him.\textsuperscript{77} However, having no use for it, B sells it to a junk-dealer for $100.

Let us first examine the incentives created by a rule of proceeds restitution. The risk involved in selling to a particular third party is that of foregoing a more advantageous sale to another potential purchaser. B will therefore continue his search for sales opportunities until his marginal search costs equal the marginal reduction of the risk just

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\textsuperscript{72} See supra note 11.

\textsuperscript{73} The following analysis is not concerned with situations where the recipient is able to make a profitable exchange, i.e., an exchange the proceeds of which exceed the market value of the good received. Similar situations will, however, be dealt with in section IV of this paper.

\textsuperscript{74} This is the position of the Restatement of Restitution (see § 142 comment b) in cases where the recipient has no knowledge of his lack of entitlement. The same result seems to be supported by BGB, W. Germ., §§ 818 (3) and 819; see D. Reuter & M. Martinek, supra note 5, at 563-69. In Austrian law the limitation to proceeds restitution applies only to the recipient who is not at fault; see P. Huber, supra note 54, at 110-14.

\textsuperscript{75} The choice between a rule of specific restitution and a rule that awards the value of proceeds has to turn on the parties relative resale costs. Once it has been determined that restitution has to be made, the parties should, however, be able to provide for an efficient arrangement, even if the legal rule puts the burden of resale on the "wrong" party.

\textsuperscript{76} The latter seems to have been the view of the drafters of the Austrian Civil Code; see 4 F. Zeiller, supra note 36, at 158.

\textsuperscript{77} This means that B faces a positive probability that (a) he is entitled to the madonna and (b) he lacks such an entitlement.
described. In the hypothetical the ex ante "optimal" price may very well equal $100, given B's limited set of information. The possibility that B may not be the owner of the madonna and that he may have to turn the net proceeds (price extracted minus transaction costs incurred by B)\(^7\) over to the actual owner should have no impact on this stopping rule,\(^7\) since under this assumption B has to bear neither the transaction costs nor the consequences of a sale below value.\(^8\)

This analysis has to be modified if the recipient is confronted with a restitutional regime under which the transferor can claim the full value of his property. B, who searches for an opportunity to sell the madonna, now not only faces the risk of foregoing profits but also, if it is ex post determined that he lacks an entitlement, the risk of an out-of-pocket loss equal to the difference between the price he actually extracts and the value of the madonna. Assuming a diminishing marginal utility of money, this loss would be a greater burden on B than a nominally equal loss of profits. Further searches for exchange opportunities therefore may appear worthwhile, although under a proceeds restitution rule a rational recipient would terminate his search after receiving an offer for $100. Furthermore, if confronted with a value restitution regime, B would also have an incentive to acquire additional information about his entitlement and thereby reduce the risk of an out-of-pocket loss.

Thus, under a rule of full value restitution the recipient who faces a positive probability of a lack of entitlement is obviously less likely to exchange the good received than under a regime of mere proceeds restitution. Since consequential exchanges by recipients generally lead to inefficiencies, this could justify a preference for the rule of full value restitution.

However, full value restitution is likely to cause higher administrative costs. In the critical situations where no regular market for the goods in question exists and where the rational recipient is therefore most likely to sell at less than the value, this value may be difficult to assess. These difficulties may necessitate expert testimony, whereas the actual proceeds should be readily determinable. It is hard to decide as a general matter whether higher consequential transaction costs or higher administrative costs of value determination will prevail.\(^8\)

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78. The Restatement of Restitution only refers to the proceeds as such and assumes exchanges without costs (see § 142 illustration 3), but search and transaction costs should be deductible by virtue of § 158.

79. A stopping rule determines when an activity (especially a research process under uncertainty) should be terminated. For a detailed discussion in a different context, see Schwartz, Products Liability, Corporate Structure, and Bankruptcy: Toxic Substances and the Remote Risk Relationship, 14 J. Legal Stud. 689, 695-701 (1985).

80. To be more precise, this presupposes that the costs of restitution to the recipient/seller are also zero.

81. It is, however, worth mentioning that the extent of the latter effect depends on
However, a thorough analysis of the consequences of proceeds versus value restitution should also take into account incentives on the transferor's part. Under proceeds restitution the potential transferor obviously faces higher losses than under value restitution and therefore should be willing to make greater expenditures on transfer avoidance. As a consequence, fewer mistaken transfers should occur under a proceeds restitution rule. This raises the issue of the relative importance of this effect as compared to that of the value restitution rule. As in the cases of money transfers, the transferor has a strong incentive to avoid mistakes. This is independent of the restitutional rule, since he faces the risk that the recipient will be insolvent when the mistake is detected. Thus, if the transferors perceive the probability of insolvency to be high or if they are risk averse, a remedy that also restricts recovery from solvent recipients will not add much to the basic insolvency-based incentive.

Finally, some arguments made in the analysis of the change of position cases also apply in the present context, and in fact seem to be decisive. Whenever there is a great discrepancy between the price a rational party would extract and the value of a good, there seems to be a strong ex post distributional case for the proceeds restitution rule, which protects the recipient against possible losses. Again, the related efficiency argument is that the recipient who is liable for the whole value of the benefit he received is likely to incur transaction costs in order to discharge his obligation. Comparable savings on the transferor's part are rather unlikely.

2. Mistaken Providers of Services

As already indicated, services differ from other goods in a way that is highly significant for our analysis. Services mistakenly rendered may cause an immediate and irreversible misallocation of resources. For example, mistakenly washing a random car is not very likely to benefit someone who happens to value such services at their market price. Therefore from the efficiency perspective one might predict differences between the restitutional rules dealing with services and those dealing with the transfer of other goods.

As in the context of mistaken money transfers, in order to facilitate the analysis of intermediary solutions, two diametrically opposed rules...
shall be examined initially. First, a rule that the mistaken provider of services is never entitled to restitution will be evaluated.\textsuperscript{84} Second, the opposite rule, that he is always granted restitutional relief, will next be considered.\textsuperscript{85}

A general denial of restitution creates a strong incentive for the prospective provider to acquire information about the object of the services and the existence of an obligation to render them. He will investigate until his marginal information cost equals the marginal reduction of his restitutional risk.\textsuperscript{86} A rule that always grants restitution gives the recipient a similar incentive. The risk to him is the difference between his willingness to pay for the services and their market price, discounted again by the probability of a mistaken transfer not prevented by the recipient's care.

Leaving aside for a moment differences in the induced costs of care and administrative costs, one would prefer the rule that leads to fewer mistaken transfers and therefore to fewer potentially inefficient allocations. Under this perspective there seems to be a clear case for a general denial of restitution. Whereas the potential provider of services or his agents can typically direct their mistake-avoidance measures to a limited variety of services and their prospective objects, at the same time the recipient faces an indefinite variety of mistakenly rendered services, many of which do not leave him an opportunity for direct personal avoidance.\textsuperscript{87} This argument can be illustrated in analytical terms by referring to the previously stated hypothetical. Let us for simplicity assume that in order to fend off mistaken car washers and avoid restitution for their services, the owner of the car would have to guard it constantly. If constant personal surveillance is either physically impossible because he also owns cars at other locations or economically infeasible because of high opportunity costs, the car owner would have to employ a full-time agent. The owner cannot increase the efficiency of his measure by reducing its intensity. If the probability of the car being washed during one day is .01, evenly distributed over time, and the owner determines that this

\textsuperscript{84} The Restatement of Restitution dedicates §§ 40 and 41 to the rules at issue. The basic rule, as laid down in § 41, is the denial of a restitutional claim to the mistaken provider of services; see Daucy v. Baker, 206 Ala. 236, 89 So. 590 (1921); Smith v. Kneisley, 178 Wash. 278, 60 P.2d 14 (1936).

\textsuperscript{85} Cf. ABGB, Austria, § 1431, which generally seems to grant the provider of services restitution. The requirement that the recipient must have benefited from the services is, however, construed as a powerful restriction; see P. Huber, supra note 54, at 209-10.

\textsuperscript{86} That is, his opportunity costs, due to the fact that he could have rendered the services to somebody who would have paid their market price, discounted by the probability of a mistake.

\textsuperscript{87} Such an opportunity would, e.g., exist if a mistaken barber wanted to cut a noncustomer's hair.
risk only justifies paying a guard for three hours, the risk of a mistaken car wash is reduced by only .00125. Thus, the car owner probably would not take any measures at all. The same would be true of many other types of services that might mistakenly be rendered to him.

The potential car washer, on the contrary, is in control of the point in time when he takes his mistake-avoidance measure. For example, he could double-check the plates of the car to be washed. So, even if he wanted to employ an agent for this purpose, an employment for a short period of time would be sufficient. Furthermore, if the provider of services is a professional who renders the same type of service regularly, there may be additional economies of scale such as establishing a control system with high fixed and low variable costs. Given this general advantage of the provider in avoiding mistakes, a rule that bars restitution, and thus puts an avoidance incentive on the provider, should generate fewer cases of mistakenly rendered services. This rule leads to less allocative inefficiency than a rule that grants restitution.

This raises the issue of when exceptions to the general denial of restitution can be justified. Consider section 40 of the Restatement of Restitution, which refers to the following groups of cases: (a) the provider’s mistake is due to a material misrepresentation by the recipient; 88 (b) the provider relied on an existing agreement that, for some reason, is not enforceable as a contract; 89 (c) the recipient knows or has reason to know of the provider’s mistake; 90 and (d) the provider discharges a duty the recipient owes to a third party.

These exceptions can basically be divided into two groups: (a) and (c) refer to cases in which, unlike the general case described above, the recipient has a comparative advantage in preventing the transfer, while (b) and (d) deal with situations where the transfer usually does not lead to an inefficient allocation.

To be more specific, the potential recipient of services generally has to take an indefinite number of different measures to avoid being provided with undesired services. Situation (a), however, creates a specific incentive for the recipient to acquire additional information concerning the truth of particular representations he makes to the prospective provider of a service. Presumably the recipient is able to gather this information more cheaply than the transferor. Moreover, unlike the general case described above, in a misrepresentation case the recipient is able to time his avoidance measure. 91

88. Cf. Wolf v. Fox, 178 Wis. 369, 190 N.W. 90 (1922).
91. Furthermore, the clause (a) exception, which also applies to noninnocent misrepresentation, is necessary to eliminate the otherwise existing incentive for the recipient to induce mistakes on the provider’s part.
A similar reasoning may explain situation (c). If the recipient already possesses information that shows or at least indicates that a particular provider is mistaken about his duty to render the services in question, the recipient has a comparative advantage in the costs of avoiding the transfer and therefore is induced to make use of this advantage.\(^9\)

In situation (b), the recipient already has expressed his willingness to receive the service at issue for value. This may warrant the assumption that this service is the recipient’s marginal good and that an inefficient allocation will not occur if it is actually rendered. One might raise the objection that this is not necessarily the case. Since the agreement to which situation (b) refers is not binding, the recipient should be granted the defense that he values the services at less than their market price. However, such a rule creates a strong incentive for every recipient to reduce his expected restitutional burden by pretending that he attributes a lower value to the service than he actually does.\(^9\) This reaction would increase administrative costs, but it would not necessarily lead to a more accurate determination of those cases in which rendering services actually has generated an inefficient allocation.

Situation (d) can be given a similar efficiency-based explanation. The recipient may not have intended to discharge his obligation as early as the mistaken provider did, but it seems fair to assume that he would have done so at a later point in time. Thus, although one can conceive of situations where the recipient temporarily has to forego expenditures that he regards as more urgent than his restitutional obligation,\(^9\) in general (d) type cases will not be characterized by an allocative inefficiency.

One might raise the following objection to all the exceptions analyzed thus far. The exceptions might induce inefficient providers of services

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92. This reasoning is supported by the analysis of unilateral mistake cases in Kronman, Mistake, Disclosure, Information, and the Law of Contracts, 7 J. Legal Stud. 1, 32-33 (1978). The information held by the prospective recipient usually is not the product of a deliberate search.

The situation described in the text is somewhat similar to rescue cases (the recipient who discloses the factual basis of the potential provider’s mistake and thereby keeps the latter from incurring opportunity costs being the “rescuer”). Unlike the common law, which denies a bystander’s liability for failure to rescue, § 40 (c) practically penalizes passivity on the recipient’s part. As a matter of fact, it has been argued that the rescue rule is inefficient; see Epstein, A Theory of Strict Liability, 2 J. Legal Stud. 151, 189 (1973). The defenses of the potential rescuer’s absence of liability provided by Landes & Posner, supra note 6, at 119-27, do not seem to be of relevance in our context.

93. This problem is similar to that created by fictitious or excessive claims of compensation for nonmonetary damages; cf. W. Prosser & W.P. Keeton, supra note 60, at 56.

94. This argument loses most of its force if the recipient contests the provider’s claim. The duration of legal proceedings will usually exceed the period during which the recipient would have deferred his (voluntary) performance.
to be careless in examining the contractual basis for the services they are about to provide since these exceptions increase the ex ante probability that a provider will be compensated even in the absence of a contract. Such an effect can be eliminated easily by ignoring the provider's own excessive costs and limiting his recovery to the amount the recipient would have saved had he provided the services himself, or to the price charged by an efficient provider.  

3. Mistaken Improvers of Property

Mistaken improvement of property is different from the typical service case just discussed, even if the improvement is caused without using tangible goods as an input. The improvement cases are characterized by a permanent increase in the value of one of the recipient's assets. For example, A mistakenly repairs B's defective car and thereby increases its value by $500, an amount equal to the market price of the repair. The risk of permanent misallocations, which is typical for the regular service cases, seems to be nonexistent since the recipient whose willingness to pay for the improvement is equal to or falls short of its market value could always sell his property to somebody who is willing to pay this amount.  

This analysis, however, does not consider differences and idiosyncrasies in the valuation of the unimproved property. For example, the value of the improved asset can be represented as the sum of two values, that of the original (unimproved) asset and that of the improvement. The owner is very likely to be the highest-valued user of his used chattels or real property, which means that a potential third-party purchaser of the improved asset would probably not have been the highest valued

95. The second order effect of potential contractual providers free riding on other providers' bidding effort (cf. Levmore, supra note 6, at 79-82) seems impossible in the case of mistaken transfers, since the assumption of strategic behavior on the provider's part presupposes knowledge of the lack of a contractual relationship between provider and recipient.

One might further object to clauses (b) and (d) if one wants to apply them to cases where the provider has not acquired sufficient information concerning the existence of an obligation to render the services, and where he was just lucky that either an agreement qualifying under clause (b) or an obligation of a third party (clause (d)) existed. A similar issue arises in tort law. Should a negligent party be burdened with a risk-based "penalty," even if no harm occurs? Cf. G. Calabresi, The Cost of Accidents 287, 306 (1970); R. Posner, supra note 62, at 171. This question is answered in the negative. As the (potential) tortfeasor cannot ex ante distinguish situations where a particular act will cause harm from those where it will not, a liability dependent on the actual occurrence of harm should provide sufficient incentives in every situation. This argument applies mutatis mutandis to the restitutional issue in question.


97. Cf. Levmore, supra note 6, at 85; P. Huber, supra note 54, at 200.
user of the unimproved asset. Thus, if the owner values the improvement below its market price, that is, if a primary misallocation has occurred, a transfer to a third party may not be able to correct this misallocation entirely. To be more precise, the transfer may correct the misallocation of the improvement, but at the expense of misallocating the asset as such. Unless the improvement can be separated from its object in an economically reasonable way, in which case the restitutioinal problem at issue would not arise in the first place, the allocative inefficiency is a permanent one.98

Even if such differences in the valuation of the unimproved property do not exist, establishing an efficient allocation may require costly transactions such as the sale of the improved asset and the purchase of a substitute by the original owner. Thus, although the inefficiencies may be of a different kind than in the service cases discussed above, one would expect similar legal regimes, considering the parties' apparently similar potential of transfer avoidance. Indeed, section 42 of the Restatement, which reflects the basic common law rule, denies restitution to mistaken improvers of land and chattels.

At first glance one might criticize the lack of exceptions analogous to those in section 40, situations (a) through (c), the adoption of which in the improvement cases could render the rule more efficient.99 The Restatement100 and American courts,101 however, do make exceptions to restitution on a more general level. Relying on principles of equity, restitution is granted for improvements of land or chattels where the owner himself brings a claim against the improver (e.g., accounting for mesne profits). The same rule is laid down in the "betterment acts" or "occupying claimant acts" passed by many states.102 This exception, which practically amounts to an inversion of the basic rule,103 at first blush does not seem to be defensible on efficiency grounds.

98. See P. Huber, supra note 54, at 200-02.
99. In fact § 40 comment a, seems to treat §§ 40-42 as a unit, which may justify a construction of § 42 as incorporating the exceptions laid down in § 40.
100. Restatement of Restitution § 42, § 155 comment d (1937).
103. This brings American law closer to the civil law systems. Austrian law (ABGB, §§ 331-32, 418) generally allows restitution in improvement cases. See also the comparison of American and Argentine law by Casad, The Mistaken Improver—A Comparative Study, 19 Hastings L.J. 1039 (1968).
One could look for a distributional justification of a rule granting restitution. Especially in real property cases, the denial of restitution may create powerful incentives on the potential improver’s part because of the considerable values at stake, but for the same reason, it may lead to an ex post conflict with distributional goals. Unlike the service cases, for the most part the recipient does not have to bear a real out-of-pocket loss if he is subject to a restitutinal claim, because he can always sell the improved asset. In other words, the value transferred is still there, and if the recipient is to keep it without any compensation, the law should require a stronger justification than it does in the service or other change of position cases where the transfer was not permanent.

This reasoning, however, also points at an efficiency-oriented objection to a general denial of restitution in the improvement context. In these cases the discrepancy between the social costs the improver’s act causes and the restitutional burden he has to face seems to be particularly large. As previously indicated, these social costs basically consist of the costs to exchange the improved asset, or the loss in utility due to the misallocation of the asset or the improvement. Especially in cases where a building has been erected mistakenly on someone else’s property, these costs for the most part will be considerably lower than the value of the improvement, which the improver would lose under a rule barring restitution. Thus, apart from distributionally undesirable effects, a general denial of restitution will also generate an overincentive to avoid mistaken improvements.

The case of the building mistakenly erected on the wrong plot of land indicates yet another efficiency argument in favor of granting restitution in improvement cases. The longer the period over which the improver’s acts extend, and in particular the longer the time needed to prepare for the actual improvement, the lower are the recipient’s costs of avoidance. For example, it may be sufficient for the owner to inspect his land once every day and to prevent all mistaken construction activities. The provider’s cost advantage described in the service cases is therefore missing, or at least of less significance.

V. PROFITABLE INFRINGEMENT ON PROPERTY RIGHTS

Tort law usually grants the owner whose goods have been converted their fair market value. The owner of real property is awarded the

104. See Levmore, supra note 6, at 85-86.
105. Thus, Levmore’s objection (see supra note 6, at 87) to granting restitution in improvement cases, that it creates a “moral hazard” to make more mistakes, is incomplete. It does not take into account that a denial of restitution may lead to the avoidance of mistakes whose avoidance is not worthwhile.
106. See W. Prosser & W.P. Keeton, supra note 60, at 90; 1 G. Palmer, supra note 2, at 157.
“actual damage” a trespasser has caused to his land. In most cases these remedies, which primarily compensate the owner, are also sufficient as a means to deter potential converters or trespassers. In some situations, however, their deterrence effect appears to be inadequate. If the converter/trespasser makes profits that exceed his expected liability in tort, he should be ready to infringe on the owner’s property and pay damages. To state the issue more precisely, can a remedy that is oriented toward the owner’s valuation of his rights ever deter an infringement if the potential converter/trespasser can put the property to a higher valued use than the owner, and if this is not the case, what alternative remedy should be adopted?

A. The Case for Deterrence of Profitable Infringements

Of course, one might ask why the infringer’s behavior, which seems to lead to a more efficient allocation, should be deterred in the first place. One possible justification for deterrence in these circumstances is analogous to that given in theft cases. Making goods a target of non-contractual appropriation by assessing a relatively low “price” in the applicable liability rule will induce expenditures on preventive measures by the owner, which will in turn lead the infringer to adopt more sophisticated and expensive ways of infringement, and so forth. If one looks at this argument closely, it appears that the owner’s expenditures are influenced by the expected number of successful infringements and the chances of recovering his property or being compensated for its loss. The extent of the owner’s restitutional claim clearly influences the former factor since the infringer is faced with the claim, whereas its effect on the latter is less obvious. At this point it should suffice to show that a restitutional rule that puts a greater burden on the infringer will reduce inefficient expenditures by owner and infringer.

A second argument for the deterrence of apparently efficient appropriations seems at least equally important. The alternative to non-

107. See W. Prosser & W.P. Keeton, supra note 60, at 75-77.
contractual infringement is not the preservation of the old inefficient allocation, but rather a contractual arrangement. The relevant issue therefore is whether such contractual transfers are more efficient than the noncontractual alternative. In other words, do the administrative costs of litigation following trespass or conversion exceed the costs of establishing a contract between the parties? In situations where the party to which the right is to be transferred attributes a higher value to it than its initial holder, there is a range of transactions leading to a Pareto superior allocation. Thus, in the absence of excessive strategic behavior, such as that exhibited by holdouts, and with a moderate number of agents on each side of the transaction, an agreement should be reached.

One could argue that a court resolving a restitutational dispute should also be able to choose a remedy, albeit with a certain bias against the infringer, at a relatively low administrative cost. This, however, does not seem to be the case. If there is a range of possible apportionments of the product of the infringement, including all the Pareto superior moves to which the parties might have agreed ex ante, any one choice must to some extent appear arbitrary. Whereas the parties to a contract do not have to justify their specific apportionment of the mutual gain, a court is required to give such a justification and in the absence of a precedent on the point may find this a rather difficult task. Even if the applicable rule that the infringer has to turn over all his profits seems unequivocal, the court has to be provided with extensive data (e.g., opportunity costs) that parties to a contract would not have to specify in order to reach an agreement leading to a Pareto superior allocation.

A related argument in favor of a contractual arrangement refers to its relative stability. Short of any other defect (e.g., mistake or fraud), the chance of avoiding a valid contract simply because there appears to be a better alternative contractual arrangement seems to be negligible. A court decision that approximates such a contract, however, basically is not immune to such a challenge. As long as the appellant can produce some persuasive authority or some view of the facts that supports an

112. The following analysis is not concerned with assembly problems that usually induce such behavior; cf. Merrill, The Economics of Public Use, 72 Cornell L. Rev. 61, 75-77 (1986).

113. See Sheldon v. Metro-Goldwyn Pictures Corp., 309 U.S. 390, 60 S. Ct. 681 (1939); see also the general discussion of pertinent cases in 1 G. Palmer, supra note 2, 157-75.
apportionment more favorable to him, he should face a positive probability of a change in the restitutional regime established by the lower court.

Thus, it is plausible to assume that the administrative costs caused by an infringement exceed the costs of an alternative contractual arrangement, even if one takes into account the fact that not all infringements lead to litigation. Consequently, deterring such infringements and thereby providing incentives to seek a contractual solution appears to be worthwhile from an efficiency perspective.

The preceding argument can be illustrated by Edwards v. Lee's Administrator, a case that has already received considerable attention in the literature. The defendant opened a cave, the entrance to which was located on his own land, to tourists and thereby earned considerable profits. One-third of the cave, however, was located under his neighbor's land. This part of the cave contained some of the chief scenic attractions shown to the visitors. The trial court found that at the time the defendant started his business, he and his "associates" knew they were trespassing on the plaintiff's property and awarded the plaintiff one-third of the defendant's net profits. The litigation extended over eight years, and while the reported opinion contains no direct information concerning the total costs of litigation, the court refers to "[a] tremendous amount of proof ... taken on each side."

What would the costs of an ex ante contractual arrangement have been? Certainly the access to the portion of the cave located under the plaintiff's land increased the defendant's expected profits and improved the competitive position of his enterprise. The plaintiff, however, having no entrance to the cave on his own property, could not have put his portion of the cave to any profitable use, unless he acquired the necessary rights from the defendant. Since the defendant always could have started the operation of his business, restricted to his own land, a holdout strategy on the plaintiff's part probably would not have been very

114. 265 Ky. 418, 96 S.W.2d 1028 (Ct. App. 1936).
115. See W. Prosser & W.P. Keeton, supra note 60, at 82; 1 G. Palmer, supra note 2, at 78-79, 162-63; Note, Torts—Trespass to Cave—Subsoil Ownership, Measure of Damages, 37 Colum. L. Rev. 503 (1937); Note, Danger, Trespass to Cave, 31 Ill. L. Rev. 680 (1937); Note, Quasi-Contracts—Use and Occupation—Recovery of Benefits Received by a Trespasser, 35 Mich. L. Rev. 1190 (1937).
116. The issue as to whether such subsurface rights should, from an efficiency perspective, be recognized in the first place, is well beyond the scope of this paper; cf. Bochinger v. Monalto, 142 Misc. 560, 254 N.Y.S. 276 (1931); W. Prosser & W.P. Keeton, supra note 60, at 82.
118. 96 S.W.2d at 1029.
successful. In the absence of other strategic or informational obstacles, the parties presumably would have reached an agreement giving the plaintiff some amount between zero and the difference in expected profits. Thus, the parties' transaction costs most likely would have amounted to only a small fraction of the actual litigation costs.

B. Three Alternative Restitutional Regimes

Moving from the ex post outcome of the case to an ex ante analysis, one might ask if the rule adopted by the Edwards court provides desirable incentives. In addressing this issue, a more operational framework is helpful. Assume A is a potential trespasser/ converter and B is the holder of the corresponding entitlement. A can make $200 by combining goods x and y. He is entitled to x (e.g., a chattel or his labor) and is certain about this entitlement, whereas he attributes the probability $p$ to the possibility that he is also entitled to y, and $1-p$ to the possibility that he is not so entitled. Let us further assume that x and y are unique and that, for both goods, next best uses exist in which x yields $100 and y $50. Thus, the value of x to A is $100. If $p$ equals one, that is, if A is certain of his entitlement to y, A's expected gain from combining x and y is $50, and this expectation is independent of the rule of restitution to be applied when A only mistakenly assumed an entitlement. The following analysis will examine the incentive effects of different restitutional rules when A is not certain of his entitlement (i.e., $0 < p < 1$).

1. The Value Restitution Rule

First consider a rule that makes A pay the value of y in its next best use, in our example $50. Thus, even if $p$ equals 0 this regime would leave A with an expected net gain of $50. Whether this rule provides an incentive for A to look for a contractual instead of a noncontractual solution seems to depend on two factors. First of all, it is by no means certain that A would be able to acquire y for $50. If B knows or suspects that his bargaining partner can use y more efficiently than any other potential buyer, he will try to capture at least

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119. If A uses x and y, his output will be $200. We will call this Use 1. Alternatively if he uses x and y for Use 2, the next best use, his output will be $150. With a probability of entitlement of 1 (p = 1), then his expected gain from Use 1 over Use 2 is $50.

120. Cf. Aro Mfg. Co. v. Convertible Top Co., 377 U.S. 476, 84 S. Ct. 1526 (1964) (restricting the "reasonable royalty" remedy of the patent owner). This rule is actually equivalent to the tort rule mentioned in the introduction to this section. It is further equivalent to the general rule for computing just compensation in eminent domain cases; see, e.g., United States v. Cors, 337 U.S. 325, 334, 69 S. Ct. 1086, 1088 (1949).
The expected contractual costs to A therefore will range between $50 and $100 depending on the relative bargaining power of the parties and the strategies they choose. Second, the expected noncontractual costs may amount to less than $50 if there is a possibility that A can get away with the infringement without B raising a claim of restitution. This possibility will depend very much on the characteristics of y and on the relative costs to the owner of enforcing his right once he has detected the infringement.

The two phenomena just described have a parallel effect. They render the noncontractual solution cheaper than its contractual alternative. Consequently, even if the expected costs to the potential infringer of contracting with the owner are lower than the expected costs of a legal dispute discounted by the probability that such a dispute will arise, the potential infringer may opt for the noncontractual solution. Thus, under the value restitution rule individually rational behavior may lead to a deviation from the social optimum. Again, this can be illustrated by our hypothetical. The fact that A pays less for y as an infringer than under a contract with B does not contribute to total social welfare, whereas a legal dispute between A and B obviously causes social costs.

Such a deviation from the social optimum will occur not only if A is certain that he will infringe on somebody else’s right \( p = 0 \), but also if he is in doubt about his entitlement \( 0 < p < 1 \). According to the preceding analysis, the lack of entitlement does not create any risk for A in the sense that he would be better off had he looked for a contractual arrangement with B instead of interfering with the latter’s rights. Thus, he has no incentive to acquire further information concerning his entitlement or to eventually enter into an agreement with the owner. Rather, he will opt for the noncontractual solution.

2. The Profit Restitution Rule

Next consider an alternative rule under which the infringer has to turn over all his profits, which in our example amount to $100. This

121. This will usually not be true if, unlike in our example, y is not unique. In a competitive market B could not possibly extract A’s surplus.
123. Y could be, e.g., a valuable chattel whose appropriation can easily be detected by the owner, or—in modification of Edwards—the right to a marginal subsurface use of a piece of land.
124. This is computed on the basis of opportunity costs. If A can substitute z for y (z yielding 70 in its next best use) and derive $200 from the combination of x and z, his gain from using z is $30.
rule will be referred to as the profit restitution rule.\textsuperscript{125}

As one might expect, incentives change with the extent of the owner’s remedy. The first of the above mentioned reasons for A’s preference for a noncontractual solution is eliminated. The measure of restitution replicates the limiting case of a bargain to which A would agree (A would be indifferent between paying $100 and not acquiring y). In this respect, the noncontractual solution can by no means be more attractive to A than the contractual one, which leaves A with a good chance of paying less than $100.\textsuperscript{126}

The second phenomenon, nondetection of the infringement or failure of the owner to pursue his claim, still exists. However, its effect should be smaller. Under the assumption that it costs approximately as much to pursue a claim for the value of y as for A’s profits, the owner’s opportunity of also recovering profits from A should create a stronger incentive to actually detect infringements and raise a restitutional claim.\textsuperscript{127} Thus, the expected costs to A of infringement should increase. For the reason just given, it is much less likely that A will choose the noncontractual solution under a profit restitution rule than under a value restitution rule. However, one may still conceive of situations in which a noncontractual solution appears preferable to a profit-maximizing party.

One might argue that the prospect of a profit recovery that exceeds the expected proceeds of a contractual exchange might induce B to lower his level of precautions in order to increase the chances of a profitable infringement. The result is that the increase in the number of such infringements leads to an overall efficiency loss. This argument, however, is ill-conceived. First of all, under a rule of profit restitution, it is quite unlikely that a rational A will choose a noncontractual solution, even if he faces no obstacles whatsoever to the infringement. Second, the argument does not consider the fact that B cannot possibly differentiate his precautions in a way that the chances of profitable infringements with his rights are enhanced, while the chances of a nonprofitable infringement remain constant. Therefore, the expected gains from lowering the level of precautions most probably will be outweighed by the risk that additional infringers, which do not make any profits and from which B may not be able to recover at all, will be attracted.

\textsuperscript{125} See its application in Olwell v. Nye & Nyssen Co., 26 Wash. 2d 282, 173 P.2d 652 (1946). Unlike in our example, the asset appropriated in this case (an egg-washing machine) was, however, not unique. Cf. Douthwaite, Profits and Their Recovery, 15 Vill. L. Rev. 346 (1970).

\textsuperscript{126} Posner’s argument (supra note 62, at 203) that A would in such a case be indifferent to infringing (and paying $100), on one hand, and contracting with B, on the other, is therefore incorrect.

One might further argue that a rule granting B restitution in excess of the value of his right will create an incentive for A to make inefficient expenditures in order to keep B from pursuing his claim. For example, A might try to obscure his infringement. This incentive also exists under a value restitution rule. However, the incentive would not be strong under a rule of profit restitution as under a rule of value restitution because of the lowered expected savings from obscuration. Thus, the real issue seems to be whether the increase in obscuration expenditures in cases where A opts for a noncontractual solution outweighs the elimination of obscuration expenditures in cases where A prefers a contractual arrangement. Even if the profit restitution rule leads to an increase in obscuration expenditures, it is quite unlikely that this increase in social costs will offset the other efficiency gains this rule could bring about.

Concluding the analysis of the profit restitution rule, the incentives created in cases where A is in doubt about his entitlement have to be examined. The noncontractual solution now implies the risk of incurring higher costs than under a contractual regime. Therefore, A will investigate into his entitlement until his marginal information costs equal the marginal risk reduction he can achieve. In most cases this search will stop either when A has determined that he is entitled or when he believes that someone else holds the entitlement. In the latter case A will negotiate with the person he believes holds the entitlement. The bargaining process, which should reveal further information about his partner's entitlement, is the final part of the search. Thus, as in the case of the intentional infringer, the number of infringements should again be lower than under the value restitution rule.

3. The Product Restitution Rule

The analysis changes again if one moves one step further and allows recovery of the value of the whole product to which the infringer's and the claimant's goods have contributed. Under a rule of product restitution, in our hypothetical B could claim $200. The noncontractual costs of y to A would exceed his expected contractual costs even further than under the profit restitution rule. The probability that A will get away with his infringement will be lower since the owner faces an even stronger incentive to discover infringements and claim restitution. Thus,

128. Cf. R. Posner, supra note 62, at 204; Oesterle, supra note 9, at 203.
130. This effect is, however, less significant than it may seem, since B's opportunity to recover $200 will also have an impact on his bargaining power in contract negotiations with A.
product restitution seems to substitute efficient contractual arrangements for inefficient infringements to a larger extent than does a profit restitution rule. Furthermore, considering the administrative costs of these rules, in many cases it may be easier to determine the value of the whole product to which B's good contributed than to compute A's profits, especially if the latter calculation takes opportunity costs into account.

One efficiency-based objection to product restitution can be raised in cases where the infringer is in doubt about his entitlement. In our example, since A risks a loss of the whole product if he fails to contract with B, he might engage in an excessive investigation into his entitlement.\textsuperscript{131} Thus, the application of the product restitution rule in such cases would provide another example of an undesirable discrepancy between the efficiency loss, which a restitution rule is supposed to prevent, and the burden this rule puts on the party who fails to avert this loss.\textsuperscript{132}

At least for the intentional infringer, who by definition has sufficient information about his lack of entitlement and therefore is not subject to the excessive investigation incentive, from an efficiency perspective the product restitution rule seems preferable to a profit restitution regime. The former rule, however, is subject to distributional objections. Unlike in our example, the value of the product and also the value of the infringer's contribution may by far exceed the value of the claimant's input.\textsuperscript{133} In such cases the application of the product restitution rule leads to a de facto confiscation of large portions of the converter's wealth on the one hand and a windfall to the owner on the other hand. Thus, in spite of small expected efficiency gains from a product restitution rule, profit restitution should be preferred.

This argument, however, does not appear very convincing if the infringer only incurs opportunity costs without suffering an out-of-pocket loss. Allowing deductions for such opportunity costs under a rule of profit restitution seems particularly troublesome if the infringer's con-

\textsuperscript{131} An excessive investigation would be one that is justified from A's perspective but not by the social cost it can avoid.


\textsuperscript{133} See Sheldon v. Metro-Goldwyn Pictures Corp., 309 U.S. 390, 60 S. Ct. 681 (1940); see also a case decided by the Austrian Supreme Court (Judgment of December 4, 1968, OGH, Austria, 91 JBI 272 (1969)), where a savings account which had been wrongfully pledged provided the foundation of a large enterprise and the court was confronted with the issue whether the account holder should—by virtue of ABGB, Austria, § 335—be entitled to the value of the whole business.
tribution is limited to the act of infringement. This would lead to some sort of legal ex post consideration for wrongful behavior that corresponds to the value of the wrongdoer's time in its next best use. Thus, even under the sensible distributional rationale of protecting the infringer’s property against confiscation, the application of a product restitution rule may be warranted under certain conditions.

As pointed out above, the infringer who attributes a probability of zero (or an infinitely small probability) to a lack of entitlement cannot be influenced by the restitutional rule that will be applied to his acts. The choice of a legal rule—value restitution, profit restitution or an intermediate solution—therefore should be based on its administrative costs and on distributional considerations. The distributional considerations should justify a treatment more favorable to the unsuspecting infringer than that of the infringer who regards the lack of an entitlement as at least possible.\(^{134}\)

V. CONCLUSION

This paper has shown that the prevention of allocative inefficiencies provides an explanatory and normative theme for rules of restitution in general and also rules dealing with mistaken transfers of nonmonetary goods in particular. In cases where such inefficiencies are not an issue, restitutional rules can be analyzed with reference to their effects on (1) the parties' expenditures on transfer avoidance, (2) moral hazards, (3) the transaction costs caused by consequential exchanges of the goods received, and (4) administrative costs.

The analysis of the deterrence effects of the traditional rules of restitution, which either allow full restitution or completely bar it, has revealed a discrepancy between the social costs the parties' acts may cause and the burden these rules impose on them. This discrepancy, which leads to excessive incentives, can be eliminated by directly linking the restitutional burden to social costs. The computation of these costs, however, may turn out to be problematic. The social costs of a misallocation of services would amount to the difference between the market value of the services and the recipient's hypothetical willingness to pay for them. Thus, even if possible, the determination of social costs in cases of misallocations would increase the complexity and the administrative costs of a given system of restitution. Limiting the system to the alternatives of restitution or no restitution therefore may be justifiable on efficiency grounds.

This paper has also demonstrated the insufficiency of a positive or normative analysis of restitutional rules that is limited to the efficiency

\(^{134}\) See Restatement of Restitution § 154 (1937); Restatement (Second) of Restitution § 45 comment c (Tentative Draft No. 2, 1984).
perspective. However, at least in the contexts examined in this paper, the distributional considerations that contribute to the explanation of these rules seem to be much more operational than the abstract concepts of justice and equity that are often referred to as general explanatory themes of the law of restitution. Finally, economic analysis can be helpful in comparing the efficiency of different implementations of these more concrete distributional goals.