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Eleni Zervogianni
University of Athens

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[*] Lena_Zervogianni@hotmail.com, LL.B., EMLE (Hamburg), Ph.D. candidate at the Law School of the University of Athens. The support given by the Graduiertenkolleg Recht und Ökonomik (University of Hamburg) and the European Commission–in the framework of the Marie Curie Fellowship Program–is gratefully acknowledged. I would also like to thank Aristides Hatzis, Giuseppe Dari Mattiacci, Francesco Parisi, Thomas Ulen and Georg von Wangenheim for their helpful comments. The editorial comments of Youlika Kotsovolou Masry were very valuable and I thank her very much.

Contents

1. Introduction

An important aim of tort law from a law and economics perspective is efficient accident deterrence.[1] This can be achieved if liability rules are designed in a way to provide both the tortfeasor and the victim with incentives to engage in their activity adopting optimal levels of care and activity.[2] One important variable of this problem is the accident loss. On the basis of this value courts determine the amount of compensation owed by the tortfeasor to the victim, in case the former is held liable, thus influencing the incentives of the parties. This variable is more important under a strict liability rule than under a negligence rule, due to the character of the first rule as a *price* and of the second as a *sanction.*[3] Even so, it maintains a certain importance in all cases.

However, an implicit assumption in all the relevant models is that accident costs can be assessed in a perfect way. If this strong assumption is relaxed and the subjective valuation of the victim is brought into the picture, the situation becomes puzzling: the subjective loss of the victim of an accident is not observable by third parties.[4] Moreover, the victim himself will never voluntarily reveal his true subjective costs; instead, he has incentives to overstate them, so that he can benefit from a higher compensation.

Given these conditions, courts actually rely on observable proxies, in order to evaluate the unobservable damage that has been sustained. In the context of damage to property, two principles of compensation have evolved over time. In their most plain version, they can be described as follows:[5]

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[1] According to Calabresi, the aim of accident law is to minimize all accident costs, namely the number and the severity of accidents (primary costs), the social costs (secondary costs), and the administrative costs (tertiary costs). *See* Calabresi, G., *The Costs of Accidents* (1970), pp. 26 ff. Since the pursuit of each sub-goal is at least partially contradicting the pursuit of the others, in this paper I focus mainly on the minimization of the primary accidents costs, which I hold as logically prior.

[2] *See*, among others, Brown, J.P., "Towards an Economic Theory of Liability", 2 *Journal of Legal Studies*, pp. 323 ff, Shavell, S., *Economic Analysis of Accident Law* (1987), Landes, W./ Posner, R., *The Economic Structure of Tort Law* (1987), and Schäfer, H.-B./ Ott, C., *Lehrbuch der Ökonomischen Analyse des Zivilrechts* (3rd *edit*. 2000), pp.117 ff.

[3] *See* Cooter, R., "Prices and Sanctions", 84 *Columbia Law Review*, pp. 1523 ff .

[4] *See* De Alessi, L./ Staaf, R., "Subjective Value in Contract Law", 145 *Journal of Institutional and Theoretical Economics*, pp. 561 ff.; Schmidtchen, D., "Time, Uncertainty and Subjectivism: Giving more Body to Law and Economics", 13 *International Review of Law and Economics*, pp. 61 ff., p. 69.

[5] A lot of variations of these basic rules have been developed over time. In what follows, I focus on the effects of the rules in their simplest form, unless otherwise indicated.

a. money damages covering the diminution of the value of the damaged thing. This rule protects the interest of the victim in the value of the thing. In other words, after compensation**,** the victim is not any poorer, objectively speaking, than he was before the accident.

b. restitution *in natura*, meaning the actual restoration of the situation as it was before the damage, by repairing or replacing the damaged thing. This rule protects the interest of the victim in a specific item.[6] The particularity of this remedy is that the costs incurred by the tortfeasor in the event of restitution *in natura* do not necessarily correspond to the benefits that the victim derives from it. This is a key element for the subsequent analysis.

At this point it is worth noting that there is a parallel between the two rules mentioned here and the two basic remedies for breach of contract, namely, money damages and specific performance.[7] However, the problematic is fundamentally different in contract law as compared to tort law.

More specifically, the terms of a contract are agreed upon by the parties and the contract is priced accordingly. Thus, if a party attaches subjective value to a specific outcome, he may want to secure this outcome by agreeing on the contract remedy of specific performance.[8] This remedy, however, makes the breach of contract more expensive for the other contracting party. The latter, anticipating this, will demand a higher price.[9] If this pricing mechanism works correctly, a contracting party will not have

[6] Restitution *in natura* is a property rule remedy in the sense of Calabresi / Melamed. *See* Calabresi G. /Melamed D., "Property Rules, Liability Rules and Inalienability", 85 *Harvard Law Review*, pp.1089, ff.. This is puzzling considering that in torts the transaction costs of *ex ante* bargaining are prohibitively high. The corresponding problem in the context of contract law is phrased by Kronman who examines the role of expectation damages (liability rule) as the default remedy for breach of contract, in spite of the low transactions costs between contracting parties. (*See* Kronman, A., "Specific Performance", 45 *University of Chicago Law Review*, pp. 351 ff., p.352-354).

[7] In contract law there is extensive literature on this issue. *See*, among others Kronman, A., *supra* note 6; Schwartz, A., "The Case for Specific Performance", 89 *Yale Law Journal*, pp. 271ff.; Ulen, T., "The Efficiency of Specific Performance: Toward a Unified Theory of Contract Remedies, 83 *Michigan Law Review*, pp. 341ff.; De Alessi, L./ Staaf, R., *supra* note 4.

[8] I am assuming, for the sake of the argument, that parties can stipulate to specific performance as a remedy.

[9] *See*, among others, Kronman, A., *supra* note 6, p. 366; Ulen, T., under "Specific Performance" in Newman, P. (ed), *The new Palgrave Dictionary of Economics and the Law* (1998), Vol 3, pp. 481ff., p. 482; Craswell, R., "Contract Remedies, Renegotiation, and the Theory of Efficient Breach", 61 *Southern California Law Review*, pp.629 ff., p. 631. This is also the starting point of Mahoney's analysis in Mahoney, P., "Contract Remedies and Options Pricing", 24 *Journal of Legal Studies*, pp.139 ff., p. 140.

any incentive to overstate his subjective valuation on performance. In addition, other contract doctrines, like for example the doctrine of foreseeability, may induce a party with a high subjective value on performance to divulge this and, consequently, limit his potential to behave opportunistically.[10] Thus the informational asymmetry between the contracting parties is somehow mitigated. On these premises, specific performance as a default remedy may induce post-breach bargaining, which may be more efficient than a court judgement in protecting the innocent party's subjective valuation on performance.[11]

Torts, on the other hand, are involuntary transactions. Pre-accident agreements cannot take place because of prohibitive transaction costs. Moreover, there is no way to mitigate the information asymmetry between the parties. Under these conditions, post-accident bargaining does not always lead to efficient results. This changes fundamentally the analysis of the tort remedies. Thus, the argumentation derived from the economic analysis of the contract law remedies cannot be applied, at least not directly, to the tort cases examined in this paper.

The aim of this paper is to compare the tort remedies of restitution *in natura* and money damages from an efficiency perspective. Of course, such comparison can take place only to the extent that these two remedies can be viewed as alternatives. In other words, I treat cases where the repair or replacement of the damaged thing can be at least as satisfactory as money damages. If, in spite of the restoration, a certain reduced value of the thing persists, restitution *in natura* is no longer an alternative to monetary compensation. Therefore, the paper does not deal with damages which cannot be made good with restitution *in natura*.

I approach the topic as follows: I show that the two rules can lead to different results; then I compare them and derive a normative proposition (2). On the basis of this proposition I evaluate the rules of different legal systems (3). In the conclusion I sum up all the results and mention possible extensions of the paper (4).

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[10] *See* Muris, T., "Costs of Completion or Diminution in Market Value: The Relevance of Subjective Value", 12 *Journal of Legal Studies*, pp. 379 ff., p. 383. It should be noted that there is some controversy on this matter. However, a further analysis of this issue exceeds the scope of this paper.

[11] *See* De Alessi L./ Staaf R., *supra* note 4, p. 572; Ulen, T., *supra* note 9.

2. Evaluation of the Rules

In this section I compare the effects of the rule of restitution *in natura* and the rule of money damages along the lines of the following dimensions: first**,** I analyze the rules from an efficiency perspective, focusing on the incentives of the victim (2.1). Then, I comment on the effect of the rules on the incentives of the tortfeasor in particular (2.2). This analysis is followed by some considerations about the implementation costs of each rule (2.3). Finally, based on the above results, I formulate a normative proposition (2.4.).

2.1. Efficiency Considerations Focusing on the Incentives of the Victim

As already noted, the amount of compensation that the tortfeasor anticipates he will pay in the event of an accident influences his choice about his level of care and activity. Likewise, in bilateral cases, i.e. in cases where the behavior of the victim can influence the probability and the extent of the accident loss, the expected compensation also influences the decisions of the victim, as far as precaution is concerned.

The way I proceed is by distinguishing between cases where the monetary value of the restitution *in natura* and the money damages are equal (2.1.1.), and cases where the costs for the tortfeasor to restitute the damage *in natura* are greater than the diminution of the value of the thing (2.1.2.).[12]

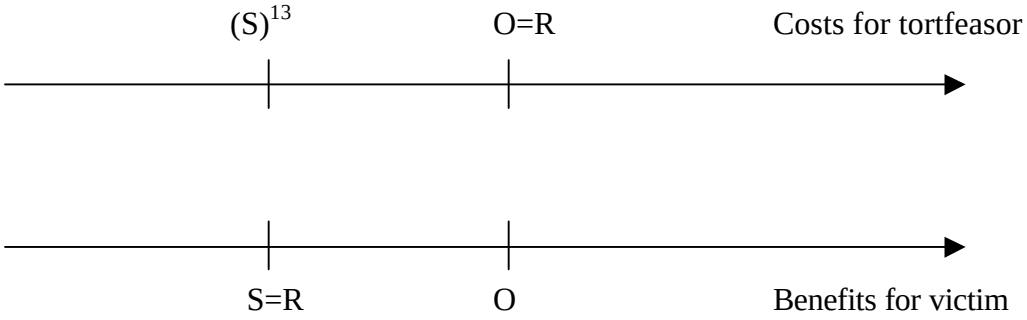
2.1.1. Cases where the Diminution of the Price Equals the Costs of Repair

On many occasions the diminution of the value of an item corresponds to the costs of its repair or replacement. This is mainly the case for serious damages which prevent the proper use of the thing.

At first glance it seems that in such cases the choice of the legal rule is irrelevant. However, this is true only if the subjective costs of the victim equal the diminution of the market value of the thing. In any different case the choice of the legal rule matters. This can be illustrated on the basis of the following graph ("S" stands for the subjective diminution of the value, "O" for the (objective) diminution of the value, i.e. drop in the

[12] The cases where the diminution of the market value of the thing is greater than the repair costs, as for example in case of severe car accidents (the repaired car is usually still less valuable than it was before the accident), are not treated because, as already mentioned, in these cases the two rules are no longer alternatives; if the remedy applied is restitution *in natura*, the extra loss will persist. Such losses can only be covered by monetary compensation.

market price, and "R" for the actual repair or replacement)



S can be less than O and R if, for instance, the pre-accident subjective value of the damaged thing was less that its market price. Although this case does not seem very probable because the victim would have sold the thing in the first place, it could occur since markets for used things do not always function well.

Under the above mentioned circumstances, S would be the ideal compensation. Under both O and R rules the tortfeasor internalizes more than the harm he externalized. However, there is a fundamental difference as far as the benefits that the victim derives under each rule**.**

Rule O overcompensates the victim, in the sense that the latter, by disposing freely the amount of the compensation, can reach a higher indifference curve than the one he was on before the accident. This suggests that in the case of O rule the problem of the moral hazard of the victim arises.

Under rule R, on the other hand, the exact pre-accident situation of the victim is restored (i.e. the thing is actually repaired), so he is as well off as before. It is evident that rule R is inefficient, since it leads to misallocation of resources. In the cases examined here, the same amount of money would yield more utility for the victim, had it been used for purposes other than the repair of the damaged thing.

Nevertheless, the choice of the remedy matters as far as bargaining is concerned. More specifically, rule R can induce the parties to bargain, if transaction costs are low enough (Application of the Coase Theorem). This is due to the asymmetry between the costs of the tortfeasor to repair the thing and the benefits that the victims derives from it**.** The victim would settle for an amount of money which is less than the costs of repair but

[13] The parentheses are used in order to indicate that the subjective value of the victims is to the tortfeasor.

higher than S**,** and the tortfeasor would, of course, be willing to pay less than R. Therefore, the scope of bargaining is between S and R.

In theory, the efficient bargaining outcome would be yielded if the victim would not appropriate any bargaining surplus, in which case the compensation would correspond to his subjective costs. However, such a result presupposes that the victim does not have any bargaining power. This can never be the case, given the information asymmetry between the victim and the tortfeasor: the victim knows the threat point of the tortfeasor but the latter does not know the threat point of the former. Thus, the bargaining result will be a point between S and R. Even so, the result of rule R after bargaining distorts the incentives of the parties less than the initial result. Rule R cannot do worse than rule O.

In general, the decision as to which rule is preferable under these circumstances depends on the probability of bargaining and the costs of bargaining. If the expected gain from bargaining, which consists in the decrease of the distortion of the incentives facing both parties, exceeds the expected cost from the misallocation of resources, caused by the inefficient repair, then R is preferable. In any other case O is preferable.

2.1.2. Cases where the Costs of Repair Exceed the Diminution of the Market Value

In many instances, the diminution of the market value of a thing because of damage is less than the costs needed for its repair or replacement. This is due to the fact that prices of things are derived from people's marginal willingness to pay for them which may depend on factors other than their objectively assessed quality. This effect is strengthened by the fact that things get individualized after being damaged.

Consider the following examples:

- Someone draws a line with a pen on a precious painting. Before the line was drawn, the value of the painting was 500. After the line, the painting can only be sold for 400. To remove the line costs 200.

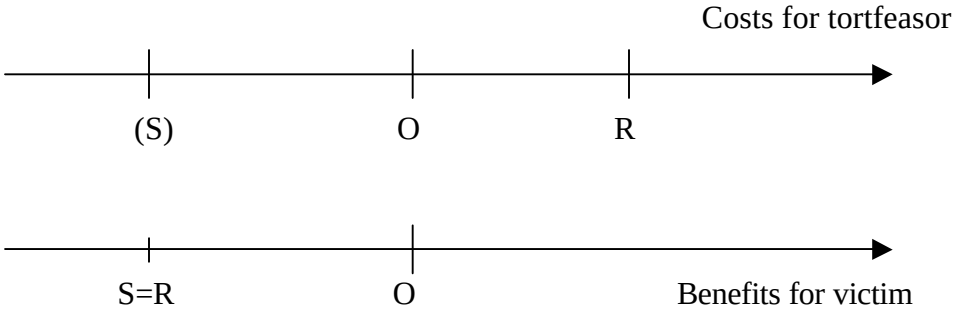
- A car is scratched. In such case the diminution of the value of the car is much less than the costs of repairing the scratch, even though there exists a pretty good market for used cars.

Hence, the value of the money damages and that of the restitution *in natura* may not coincide. This means that the tortfeasor will have to pay different amounts of compensation depending on the legal rule which applies.

In order to evaluate the rule of money damages and the rule of restitution *in natura,* it is necessary to look into their possible relation to the subjective damage of the victim. For this purpose I distinguish between cases where subjective damages are less than the diminution of the market price and cases where subjective damages are more than the diminution of the market price, but less than the repair costs. In what follows I analyze each case separately.

2.1.2.1. Case A: Subjective Damages are Less than the Diminution of the Market Value

This case can be depicted as follows.



Such a case may arise when the damage does not prevent the use of the thing in which the victim is interested. The damage will, of course, diminish the resale value of the thing but this is of no great interest to the owner, since he does not intend to resell it. In any case, the repair of the damaged thing may cost more than the diminution of its market value.

As mentioned above, perfect compensation would be S. Under both R and O rules, the tortfeasor internalizes more than the harm he externalized. In addition, rule O distorts the incentives of the victim as far as precaution measures are concerned, since he is overcompensated. However, rule R may lead to misallocation of resources, if no bargaining takes place.

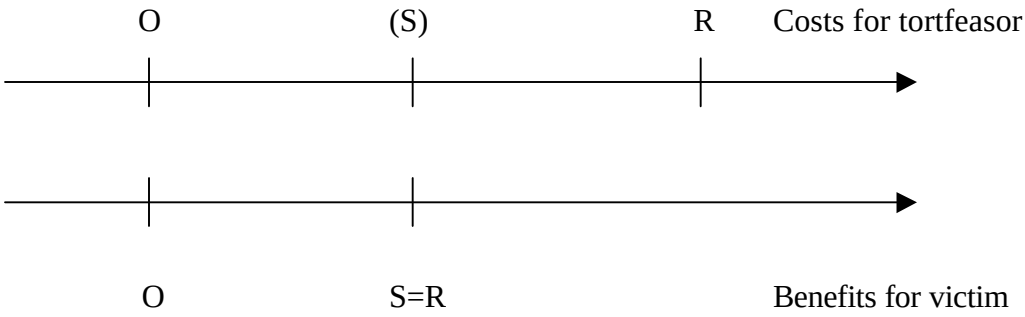
Nonetheless, under rule R, parties may bargain. The scope of bargaining is, as in the previous case, between S and R. Although S will never be an equilibrium, bargaining

could mitigate to some extent the inefficiencies of the R rule. The victim, however, will pretend that his threat point is at least O. The bargaining result will be between O and R, and most likely, taking into account the increased bargaining power of the victim, closer to R. This result distorts the incentives of the victim more than the O rule.

Hence, in the majority of such cases, rule O is less inefficient than rule R.

2.1.2.2. Case B: Subjective Damages are More than the Diminution of the Market Value, but Less than the Repair Costs.

The depiction of this case would be as follows:



Such cases seem to be the most usual ones. A typical example is that of a scratched car. The subjective value, which in this case is higher than the market price, is not only due to personal attachment; it can also be due to the non-perfect substitutability of the good. This seems to be the case, especially under conditions that favor 'markets for lemons'.

As it can be seen from the lines in the above graph, O rule leads to undercompensation of the victim. This means that the tortfeasor does not internalize all the harm he externalized. Rule R on the other hand, performs in exactly the same way as in case A. In other words, R is more costly for the tortfeasor without overcompensating the victim. Thus, it is not efficient.

Nonetheless, under rule R there is scope for bargaining between S and R. The result will be a point between S and R, depending on the bargaining power of the parties, and most likely closer to R, since the tortfeasor does not know the threat point of the victim.

Comparing rules O and R, the result depends on the exact position of S. In general, performing the same analysis as in the previous cases, it seems that the rule under which the compensation closer approximates the loss of the victim is preferable.

2.1.2.3. Other Cases

Symmetrically**,** a third case seems to exist where the subjective damages exceed the repair costs. This implies that**,** even after repair, there will be some residual damage for the victim. These cases are out of the scope of this paper, because I treat only those where money damages and restitution *in natura* are alternatives. If it is infeasible to compensate with repair, there is nothing left to compare. Money damages are the only possible remedy.

2.2. The Incentives of the Tortfeasor in Particular

From the point of view of the tortfeasor, adopting the efficient level of care and activity presupposes the anticipation of the amount of compensation he will have to pay if he is found liable. However, in most accident cases the tortfeasor acts behind 'a veil of ignorance'; he cannot know *ex ante* the victim's valuation of the damage. Usually, he cannot even anticipate exactly which item he is going to damage.

As follows from the foregoing analysis, rule O leads to the tortfeasor's internalizing sometimes more and sometimes less than the actually inflicted harm. Nevertheless, if the diminution of the market value of a thing were a good indicator of the mean value of damages suffered by the victims, in spite of the possible deviations from case to case, the incentives of the tortfeasor concerning accident deterrence would be overall efficient.

However, this does not seem to be the case since, according to the findings of experimental economic studies, a person's willingness to pay for a good is systematically less than his willingness to accept for the same good.[14] This implies an affection of individuals for their own goods; therefore the *subjective value* of a thing is usually higher than its market price. This does not necessarily determine the result of the comparison

[14]This effect is known as the 'endowment effect' (*See* Korobkin, R. / Ulen, T., "Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics", 88 *California Law Review*, pp.1051 ff., p. 1107).

between the '*objective'* and the *subjective* diminution of the value. However, there seems to be a positive correlation between the two.

Rule R, on the other hand, seems to perform better when there is a subjective value attached to the damaged thing, higher than its market value. However, under this rule the tortfeasor is usually led to internalize more than the damage he caused. Consequently, if this were the only applicable rule, overdeterrence would result.

If courts can decide which rule to apply on a case-to-case basis, it seems at first glance logical to deny any *ex ante* effect of the rules on the incentives of the tortfeasor, since usually he cannot know *ex ante* under which case he will fall. However, this is not exact; even so, the tortfeasor can estimate the mean value of compensation that the victim was awarded in past cases. This amount can be expressed as a percentage of the diminution of the market value of a thing (e.g. the mean compensation a victim usually receives may amount in general to 120% of the diminution of the market value.) Then, the tortfeasor can solve his maximization problem by calculating the expected compensation he will pay, once found liable, accordingly.

This is efficient, provided that the compensation that the victims usually receive is the best possible approximation of their subjective losses, without any systematic tendency of over- or undercompensation. Empirical studies on this issue would be of great value.

2.3. Costs of Implementation

Apart from the bargaining costs between the parties, in cases of a rule of restitution *in natura*, mentioned in section 2.1, further considerations about the additional costs of implementation of each rule are merited.

More specifically, monetary compensation consisting in the diminution of the market value of the thing, involves costs which refer to the calculation of this diminution. The more individualized a thing is, the more these costs rise, and they reach their peak in the case of unique goods.[15] These costs are, at least to some extent,[16] borne by the courts.[17]

[15] *See* Kronman, A., *supra* note. 6, pp. 360-361.

The application of the rule of restitution *in natura* does not impose considerable costs on the courts**,** since the tortfeasor must achieve a certain result (i.e. the restitution) independently of the relevant costs. However, a rational tortfeasor will have already anticipated the cost of repair, in order to adjust *ex ante* his level of care and activity. This conversion is not costly, if a competitive market for repair is assumed. In any case, the costs involved seem to be systematically less than the costs of pricing the diminution of the value of a thing.

It is often claimed that the application of the rule of restituton *in natura* is more costly, because it involves high monitoring costs and could lead to further disputes of the parties as to whether the repair was proper or not. [18] This argument, however, is not decisive; in a competitive market for repairs, it will not arise. Even if this does not hold, it could be encountered if the victim and the tortfeasor were required to agree on the relevant issues before performing the repair.[19]

It is difficult to determine categorically which rule is associated with higher implementation costs. [20] This varies from case to case. However, it would be reasonable to claim that**,** in general, if transaction costs would be the only relevant variable, restitution *in natura* would be preferable the more individualized a thing is, since in these cases it is difficult to evaluate the diminution of its market value.

2.4. Synopsis of the Results and Formulation of a Normative Proposition

To sum up, neither restitution *in natura* nor money damages provide both the victim and the tortfeasor with the efficient incentives in all cases. There does not seem to exist an optimal solution to the problem of compensating the real (subjective) accident losses. Looking for a second best solution, it seems reasonable to classify the cases in

[16] This extent depends also on the relevant procedural rules. In any case, the court will have to evaluate the accuracy of the claim of the plaintiff.
[17] *See*, among others, Ulen, T., *supra* note 7, p. 384.
[18] *See*, among others, Schwartz, G., "The Case for Specific Performance", 89 *Yale Law Journal*, pp. 271 ff, pp. 292-3, who poses and treats this problem in the context of the remedy of specific performance in contract law.
[19] If the victim chooses the mode of repair alone and the tortfeasor has to pay the bill, there is the danger of opportunistic behavior on the part of the victim, who might collude with the repairman, charge a higher price, and share the extracted benefit.
[20] Similar statement is made by Kronman, A., *supra* note 6, p. 374, concerning the costs of specific performance as compared to the costs of expectation damages.

different categories and treat them separately. The more the mean amount of compensation of the victims approximates their subjective costs, the better the incentives of the parties are aligned.

In cases where the diminution of the value equals the costs of restitution *in natura*, the latter remedy is preferable, if bargaining is possible.

The rest of the cases could be sorted out it two main groups, on the basis of the magnitude of the subjective valuation involved**:**[21] the higher the subjective valuation involved, the more suitable the remedy of restitution *in natura*. Such distinctions may appear arbitrary in the examination of each specific case but could lead to rather satisfactory results overall.

A key element of this analysis is that the judge is able to identify roughly the different types of cases. A starting point seems to be the presumption that the subjective costs of the victim exceed the diminution of the market value of the thing.[22] Further criteria may refer either to the owner of the thing or to the thing itself. More specifically, in cases where a legal person is the owner of the thing (e.g. car belonging to a company), it is unlikely that any subjective value would be involved. The same is valid for things which are owned by natural persons but are merely functional (e.g. instruments of work). Moreover, subjective value seems to increase as the age of the thing increases. This is due to the fact that relatively new things can be replaced rather easily, whereas things tend to get more individualized through continuous use.

Of course, the distinction will not be perfect in all cases but as long as the errors are stochastic and there is not a systematic tendency of over- or undercompensation of the victim, the incentive effects of the rules are not distorted.

Finally, apart from the incentives of the parties, the probability of inefficiency resulting from the misallocation of resources, because of inefficient repair, should also be considered. This case arises if R rule is not followed by bargaining. In theory, there does not seem to be a reason why this should occur; the identity of the parties is not disputed, and both the victim and the tortfeasor are advised by lawyers; so transaction costs seem

[21] A similar distinction was proposed by Muris, T. (*supra* note 10, p. 382) in the context of contracts.
[22] *See* Korobkin, R. / Ulen, T., *supra* note 14.

low. However, any empirical evidence pointing to the opposite direction should be taken into account.

The normative proposition which is drawn from the above analysis is that legal systems which recognize both tort remedies are preferable. More specifically, a legal system in which differentiation can be made as to which rule should be applied in each case, can lead to rather satisfactory results, provided, of course**,** that the courts follow a coherent practice, so that legal certainty is not at stake.

3. Short Overview of Different Legal Systems

Legal systems can be divided into four categories, according to the way they deal with tort remedies. The first category includes countries where restitution *in natura* is the main rule and money damages are granted only if restitution *in natura* is impossible or disproportionally costly (e.g. Germany–at least according to the letter of the law). At the other end of the continuum stand countries where the remedy of restitution *in natura* is practically unknown, at least as far as damages to things are concerned (e.g. England). In countries of the third and the fourth category it is possible for both tort remedies to be applied to each specific case, either on equal terms (e.g. France), or by recognizing a certain priority to the rule of money damages vs. the restitution *in natura* (e.g. Greece).

In the light of the conclusions of section 2, I now proceed to examine and evaluate the law of Germany, England, Greece, and France respectively. It is worth noting, however, that the full compensation of the victim for his material losses is a general principle in all the legal systems listed above.

3.1. Germany

The main relevant clauses in the German Civil Code are §§ 249 and 251 BGB. According to §249 BGB, the tortfeasor has to restore *in natura* the situation that would exist, had it not been for the culprit's wrongful behavior. However, in the case of the damage of a thing, the victim has the right to demand, instead of the actual restitution, the corresponding amount of money (§249.2 BGB). In fact, this is a kind of monetary compensation whose amount is not calculated on the basis of the diminution of the value of the thing, but on the basis of the repair costs. § 249 BGB was recently modified by the

addition of a special provision[23], according to which the value added tax (VAT) is not included in the compensation, unless it is actually paid. Finally, according to §251 BGB, compensation can be monetary (calculated on the basis of the difference theory[24], which more or less coincides with the diminution of the value of the thing) in cases where restitution is impossible, inefficient, or disproportionally costly.

In practice, although the principle is restitution *in natura*, this is interpreted broadly, given the provision of §249.2; so the victim is routinely granted the costs of repair**.**[25] However, the latter does not have to invest this amount in the actual repair of the thing. This stems from the principle of freedom of disposition.[26] Moreover, since the compensation received by the victim is in the end monetary, there is no scope for bargaining. Therefore, the result is systematic overcompensation of the victim which leads to the distortion of the incentives of both parties. However, the misallocation of resources resulting from an inefficient repair is prevented.

The distortion of the incentives of the parties is strengthened by the fact that the courts award repair damages even for things which the victim cannot repair because he no longer owns them.[27] The German legal term for this type of damages is "fiktiven Reparaturkosten" and can be rendered in English as "fictitious damages". This issue has been questioned for a long time.[28] The Highest Court (BGH) decided in 1976[29] that repair costs are awarded only if it is possible for the victim to perform the repair; if not, §251 BGB applies. However, in 1985 the practice of the courts changed.[30] Since then, fictitious

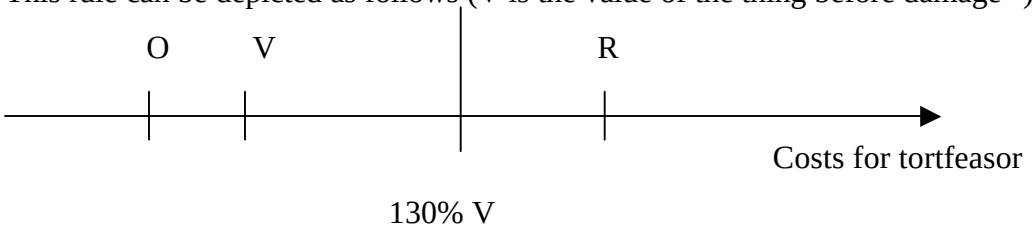
[23] The Schadensersatzrechtsreform added this sentence to the second paragraph of §249 BGB.
[24] The difference theory was first formulated by Mommsen in 1885. (*See* Magnus, U., *Schaden und Ersatz*, (1987), p. 10 ff). According to its plainer version, the amount of damage is determined by the comparison of the value of the property of the victim after the accident, and that which would exist, had the accident not taken place. Since then, legal scholars have analyzed this theory extensively. A lot of variations of this theory have developed. (*See* Schiemann, G. in von Staundigers J., *Kommentar zum Bürgerlichen Gesetzbuch*, §§249-254 BGB, (13th *edit*, 1998), § 249 BGB, *No* 5 ff, p.62). In German law the objective version of the theory is followed (*See* Magnus, U.**, "**Damages under German Law**"**, in Magnus, U. (ed), *Unification of Tort Law: Damages*, (2001), pp. 89 ff, p. 96).
[25] *See* Medicus, D., *Schuldrecht I, Allgemeiner Teil*, (12th *edit*. 2000), p. 275; Magnus,U., *Schaden und Ersatz*, *supra* note 24, p.29**;** Roth, A, **"**Das Integritätsinteresse des Geschädigten und das Postulat der Wirtschaftlichkeit der Schadensbehebung**"**, *Juristen Zeitung* 1994, pp. 1091 ff., p.1092.
[26] *See* Magnus, U., *supra* note 25, p 61.
[27] *See* Magnus, U., *supra* note 25, p. 58; Magnus, U., **"**Damages under German Law**"**, *supra* note 24, p. 105.
[28] *See* Hamann, U., *Schadensersatz in Natur oder Geld bei Sachsschäden* (1974), p.149.
[29] BGH 23.3.1976, BGHZ 66, p. 239, *see* Magnus, U., *supra* note 25, p. 59.
[30] BGH 5.3.1985, *Versicherungsrecht* 1985, 593. *See* Magnus, U., *supra* note 25, p. 60.

damages are awarded routinely.[31] The latter opinion prevailed on the basis that the costs of repair are a proxy of the diminution of the value of the thing. It was claimed moreover that the owners of damaged things should be treated equally, no matter whether they intend to repair the thing or sell it as is, since their intentions are of no interest to the court.[32] Clearly, these arguments can be easily challenged.

The recent reform of the law of compensation rules out the possibility for the victim to collect the VAT, if he did not really perform the repair. The recovery of the VAT, in cases where no repair had taken place, is a fictitious damage. Therefore, the new law which prevents the recovery of this damage is reasonable. However, it is difficult to understand why the reform is restricted to this particular kind of fictitious damage and does not treat other similar matters along the same lines. [33]

As far as §251 BGB is concerned, its first provision is logically necessary; when repair is indeed impossible**,** there exists no other option than monetary compensation calculated on the basis of the difference theory.[34] However, the same provision applies when the restitution *in natura* is disproportionally costly. Disproportion is a rather vague term, but it has been interpreted in a concrete way.[35] The rule is particularly clear in case of car damages. In these cases, a repair is considered to be disproportional when it costs more than 130% of the value of the car before the damage**.** [36] [37]

This rule can be depicted as follows (V is the value of the thing before damage[38]):



[31] *See* Magnus, U., *supra* note 25, p.59.
[32] *See* Magnus, U., *supra* note 25, p. 60.
[33] *See* Karczewski, C., **"**Der Referentenentwurf eines Zweiten Gesetzes zur Änderung schadenersatzrechtlicher Vorschriften**"**, *Versicherungsrecht* 2001, pp. 1070 ff., p.1074.
[34] In Germany this theory is interpreted under the light of the abstract (or objective) calculation of the damage.
[35] *See* Medicus, D., *supra* note 25, p. 278.
[36] *See* Magnus, U., *supra* note 25, p. 106; Schiemann, G., in von Staudingers, J., *supra* note 24, §251 BGB, *No* 22ff, p. 180.
[37] §251.2 BGB relaxes the condition of proportionality in the case of injury of animals.
[38] This issue also involves the comparison between the value of the thing and the replacement costs which, however, exceeds the scope of this paper.

This provision seems to be quite useful for the purpose of preventing extreme overdeterrence effects and inefficient repairs. Nevertheless, rigid interpretation seems arbitrary.[39] In the bottom line the efficiency of the repair is decided by the use of objective criteria, if S exceeds O by 30%. In these cases the victim is undercompensated.

In general, German Law is inflexible, as far as tort remedies are concerned. The restitution *in natura*, in its broader sense, is a general principle of German tort law inspired by concerns for distributive and corrective justice. The interest of the victim in the value of the thing (Wertsinteresse) and his interest in the thing itself (Integritätsinteresse) are treated as qualitatively different.[40] This does not really conform to the preventive goal of tort law.

3.2. England

In English Common Law tort damages are always monetary.[41] Restitution *in natura* is hardly an option in tort law.[42] Thus, damages should cover the diminution of the (market) value of the thing.[43] This diminution of the value of the thing is *prima facie* given by its costs of repair or replacement.[44] [45]

The rule seems reasonable. Since it is only a *prima facie* rule, the defendant can challenge it.[46] However, in practice, it is hardly ever reversed.[47] This is manifested in the Glenfinlas case where the plaintiff received repair costs, even though he admitted before the court that he does not intend to repair his vessel.[48]

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[39] This rule also seems to prevent excessively inefficient repair and prevents the further increase of the monopoly bargaining power of the victim. However, this does not seem to be an important issue in German law anyway, since the award of the costs of repair, as opposed to the repair itself, prevents bargaining.
[40] *See* Medicus, D., "Naturalrestitution und Geldersatz", *Juristische Schulung* 1969, pp. 449 ff., p.449**;** Roth, A., *supra* note 25, p. 1091; Coester-Waltjen, D., "Die Naturalrestitution im Deliktsrecht", *Jura*, 1996, pp. 270 ff.
[41] *See* Stoll, H., "Consequences of Liability: Remedies", in Tunc, A. (ed), *International Encyclopedia of Comparative Law*, Vol. XI, Torts, 1983, Ch. 8, s. 39, p.41.
[42] *See* Rogers, H., "Damages under English Law", in Magnus, U. (ed), *Unification of Tort Law: Damages* (2001), p. 53 ff, p. 58.
[43] *See* Mc Gregor, H., "On Damages", in *Common Law Library*, 9 (16th *edit*. 1997), p. 44.
[44] *See* Stoll, H., *Haftungsfolgen im bürgerlichen Recht* (1993), p.161.
[45] An exception to this practice may arise in cases of damages to land but not necessarily. *See* Mc Gregor, H., *supra* note 43, pp. 44-45.
[46] *See* Rogers, H., *supra* note 42, p. 67; Mc Gregor, H., *supra* note 43, p. 870.
[47] *See* Rogers, H., *supra* note 42, p. 65.
[48] *See* Rogers, H., *supra* note 42, p. 75, Mc Gregor, *supra* note 43 p.873.

In addition, fictitious damages are often compensated[49]. This is evident in the London Corporation case where the plaintiff received repair costs for his ship, although he had sold it before the trial. Therefore, money damages are routinely calculated on the basis of the cost of restitution *in natura.*

The main argument supporting this practice is that, in case of damaged things, the diminution of their price cannot be assessed because there is no market for damaged things. [50] This argument, however, is not entirely convincing, since a price can be attached to anything, regardless of the existence of a market for it.

Furthermore, in cases where the repair costs exceed the pre-accident value of the thing, the legal solution is not clear. Nonetheless, it seems that the rule is similar to German law in the sense that repair costs are usually awarded even if they exceed, to some extent, the initial value of the thing,[51] provided that the difference between these two values is not very significant. In the latter case, the diminution of the price of the thing[52] is granted to the victim.

Overall, the results to which English law leads are not much different than those of German law, even though the starting point of the two legal systems is quite different. In general, monetary compensation is calculated on the basis of the costs of repair, without, however, obliging the victim to actually repair the damaged thing. Thus, no bargaining can result. This overcompensation of the victim distorts the incentives of both parties. This is obvious in the case of the compensation of fictitious damages. However, the misallocation effect due to an occasional inefficient repair is avoided.

3.3. Greece

In Greece the relevant article is article 297 of the Greek Civil Code, according to which compensation is monetary. In special cases the judge may opt for restitution *in natura,* if this does not conflict with the interests of the victim. If this provision is interpreted in combination with article 106 of the Code of Civil Procedure, according to which the judge cannot decide on issues other than those brought before the court by the

[49] *See* Mc Gregor, H., *supra* note 43, p. 870.
[50] *See* Rogers, H., *supra* note 42, p.75.
[51] *See* Magnus, U., *supra* note 25, p. 72.
[52] This is derived this time by the costs of replacement.

parties, ambiguity arises as to whether the judge can decide for restitution *in natura* if the parties have not asked for it. According to the prevailing opinion, this question should be answered negatively.[53]

The next step is to examine the way courts interpret the special circumstances which justify restitution *in natura*. In jurisprudence most cases of restitution *in natura* are characterized by asymmetric costs of repair, meaning that the costs of the tortfeasor to restitute the damage *in natura* are lower than those of the victim (e.g. when a car is crashed by the owner of a garage).[54] However, it is obvious that this interpretation is rather narrow. Thus, in practice not many cases of such restitution *in natura* exist.

Monetary compensation is calculated on the basis of the difference theory,[55] which is interpreted in the light of the theory of concrete evaluation of the damage.[56] This means that the special circumstances of each particular case are taken into account in order to approximate the damage for the specific victim. This rule often leads to a monetary compensation equal to the repair costs of the damaged thing but not necessarily.[57] [58] Nevertheless, since compensation is usually monetary, there is no scope for the parties to bargain.

As far as fictitious damages are concerned, they are not compensated in Greece.[59] Moreover, it is worth noting that, although there is no explicit rule preventing the award of repair costs which exceed the pre-accident value of the thing, judges would be reluctant to award them.

However, overall, these rules seem to satisfy the need for flexibility. The judge has some discretion in the determination of the concrete amount of compensation. There seems to be no evidence of systematic over- or underdeterrence.

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[53] *See*, instead of others, Stathopoulos, M., in Georgiades, Ap./ Stathopoulos, M., *Civil Code Commentary, Vol. II, Law of Obligations, General Part*, (in Greek) (1979), CC 297-298, *No* 15, p. 64).
[54] See Georgiades, Ap., *Obligation Law, General Part*, (in Greek) (1999), p. 158.
[55] *See* Stathopoulos, M., *supra* note 53, *No*10, p.62.
[56] *See* Stathopoulos, M., *supra* note 53, *No* 25, p. 66.
[57] *See* Stathopoulos, M., *supra* note 53, *No* 112, p. 95. It is characteristic that when a thing is destroyed, then the victim does not receive full costs of replacement, but these costs are discounted, in case the damaged thing was not new.
[58] Many problems have arisen concerning the crucial time for the calculation of the compensation. *See*, among others, Georgiades, Ast., "The time of the evaluation of the damage" (in Greek), *in Essays in Honor of Gazis* (1994), pp.111 ff.
[59] *See* Kerameus, K., "Damages under Greek Law", in Magnus, U. (ed), *Unification of Tort Law: Damages* (2001), pp. 109 ff, p. 116.

3.4. France

The French Civil Code does not contain any explicit provision about the form of compensation in case of torts. The judge may decide in favor of money damages or restitution *in natura*, without being bound by the demand of the parties. [60]

In practice, courts usually award money damages, calculated on the basis of the repair or replacement costs of the damaged thing. [61] These costs, however, cannot exceed the value of the replacement of the thing. [62] As far as compensation for fictitious damages is concerned, the result is not clear. It seems though that such recovery is not systematically denied. [63]

Overall, the French legal system is very flexible and could lead to optimal results. Ideally the judge could distinguish between the cases where subjective value should be protected, and the cases where subjective concerns do not seem to exist. However, in France the concern to fully compensate the victim is very intense. Therefore, it could be expected that in the final analysis overcompensation ensues, and hence overdeterrence will result.

4. Conclusion

To sum up, the choice of the tort remedy can influence the final amount of compensation owed and induces both parties to adjust their level of care and activity accordingly. The efficient result would occur if compensation coincided with the subjective damages of the victim. Since in reality the victim will never reveal his true subjective valuation, this is not feasible. Hence, the second best solution is to apply the tort remedy which can lead to the closest approximation of the ideal result. This remedy is not necessarily the same for all cases, but can vary according to the height of the subjective costs of the victim. To the extent that third parties (i.e. the judges) can roughly identify the different types of cases, flexibility of the legal system is really important.

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[60] *See* Starck, B., *Obligations, 1. Responsabilité Délictuelle*, (5th *edit* 1996), p.517; Kousoulos, I., "Remarks on CC 297", (in Greek), *Elliniki Dikaiosini (Greek Justice)*, 1960, pp.15 ff., p.17.
[61] *See* Galand-Carval, S., "Damages under French Law", in Magnus, U. (ed), *Unification of Tort Law: Damages* (2001), pp. 77 ff., p. 82.
[62] *See* Magnus, U., *supra* note 25, p. 54, Stoll, H., *supra* note 44, p. 161.
[63] *See* Magnus, U., *supra* note 25, p. 71; *contra*, Galand-Carval, *supra* note 61, p. 87.

In practice, in all legal systems repair costs are usually awarded to the victim, regardless of the actual repair of the damaged item. In fact this is a form of monetary compensation, irrespective of the legal term used to describe it. Thus, the possibility of *ex post* bargaining of the parties is excluded. Generally, it leads to systematic overcompensation of the victim, followed by overdeterrence of the tortfeasor.

An issue closely related to the current topic is this of the relationship between repair and replacement of damaged things, especially when the costs of repair exceed the costs of replacement. Moreover, a further step would be the enrichment of the analysis by taking into account the relevant procedural rules. Another important extension would concern the impact of insurance on the current analysis. Finally, empirical studies could shed some light on the height of subjective damages suffered by the victims and the transaction costs associated with each remedy.

Understanding the effects of different institutions becomes increasingly more important, considering the eventual drafting of the European Civil Code. It is worth mentioning that, in the Draft of the Study Group on a European Civil Code regarding the Principles of Tort Law, this issue is not decided yet.

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