

The role of experts in assessing damages - a law and economics account

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The Role of Experts in Assessing Damages – A Law and Economics Account

Michael Faure* and Louis Visscher**

In this contribution we focus on the role of experts in the assessment of tort damages from an economic point of view. We distinguish two different aspects.

First, we examine the role which economists might play in assessing damages in tort cases. This approach focuses on the insights that Law and Economics provides regarding the correct assessment of damages. We pay specific attention to two problematic forms of losses where economic insights may play an important role: pure economic loss and personal injury damage (both loss of income and compensation for immaterial losses due to fatal and non-fatal accidents).

Second, we investigate from a Law and Economics point of view the role of experts in general (not only economists) in the assessment of damages. We discuss i.a. the question why experts may be involved in the assessment of damages, the potential problems (and the possible solutions) when using experts, and differences between party appointed experts and court appointed experts.

It turns out that the economic analysis can provide a different, insightful viewpoint in some respects, such as the fact that market based mechanisms may help to provide incentives to party appointed experts to provide an accurate and objective damage assessment.

I. Introduction

Law and Economics scholars have, especially in the U.S., paid a lot of attention to the role of experts. However, a great deal of this literature does not immediately address the role of experts in the process of assessing damages in tort law. Economists are often used as an expert or expert-witness in court cases.¹ In those situations their role seems to be restricted to

the domains which traditionally are considered part of the “old Law and Economics”, more particularly competition law. Especially as far as antitrust cases are concerned, an introduction of economic expertise in the court can in some cases lead to intensive battles concerning the goals of antitrust law.² In antitrust cases, economists are often used as expert-witnesses.³ In addition, economic expertise is also

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1 Verkerk explains that in common law countries the expert is often called an “expert witness”, and in continental jurisdictions an “expert”. This is caused by the fact that the former jurisdictions are more adversarial and the latter more non-adversarial. See Remme Verkerk, “Comparative aspects of expert evidence in civil litigation”, 13 *The International Journal of Evidence and Proof* (2009), pp. 167 *et seq.*, at pp. 167, 170; see also Remme Verkerk, *Fact Finding in Civil Litigation. A Comparative Perspective* (Antwerp: Intersentia, 2010), at p. 160.

2 See in this respect John Lopatka and William Page, “Economic Authority and the Limits of Expertise in Antitrust Cases”, 90 *Cornell Law Review* (2004–2005), pp. 617 *et seq.*

3 See, for example, Gregory Werden, “The Admissibility of Expert Economic Testimony in Antitrust Cases”, in American Bar Association, *Issues in Competition Law and Policy* (2008), pp. 801 *et seq.*

used to assess the damages in case of violation of European competition law.⁴ A great deal of the literature is therefore devoted to the question of the comparative pros and cons of a more extensive involvement of these economists (including academics) as experts in trial cases.⁵ The role of economists as experts has apparently become so important that in 1989 a journal was launched (*Journal of Forensic Economics*) which is exclusively devoted to that topic.

In this contribution, however, we wish to focus on the role of experts in tort cases and more particularly in the assessment of damages. Even though the role of experts is obviously not limited to tort cases, it appears that in the U.S. personal injury cases represent 57 % of the income of forensic economists, whereas antitrust and other commercial cases – which are undoubtedly more appealing to the media – only represent 14 % of the total income of experts.⁶

We do not merely look at the role of economists as experts in court cases in general. Our focus is more limited, on the one hand, since we only want to look at the role of experts in assessing damages in tort cases (thus excluding their role in other cases). On the other hand, our approach is broader in the sense that we do not only focus on the economist as a potential expert, but also on all other potential experts (thus including e.g. medical experts) in as far as they play a role in the assessment of damages.

Of course, when addressing “the role of experts in the assessment of damages from an economic perspective”, many questions and issues come to mind. First, one could examine, from a Law and Economics perspective, the role of experts in the assessment of damages, the pros and cons of the involvement of experts, potential differences between party appointed versus court appointed experts et cetera. Second, one could examine the role which economists could play as experts in assessing damages in a tort case. The latter approach focuses on the insights that Law and Economics provides regarding a correct assessment of damages.

In our contribution we focus on both aspects. We, however, limit ourselves to the assessment of damages in tort, even though it were possible to equally address damages in case of, e.g., breach of contract, violation of intellectual property rights or abuse of a dominant position in antitrust law. We also limit ourselves to a Law and Economics approach to the involvement of experts and hence do not discuss the (equally rich) legal literature concerning the role of expert witnesses in many legal systems. It is, however, striking that when one briefly addresses legal literature, similar problems seem to be addressed as in the Law and Economics literature. For example legal literature also addresses the question why and under which circumstances the judge should appoint an expert, whether the judge should, in case of conflicting opinions, appoint a third expert and how the quality and objectivity of the testimony provided by an expert can be guaranteed. Most of the literature we use is of American origin, but the insights are equally relevant for the use of experts in Europe. Where appropriate, we devote specific attention to relevant differences.

Our paper is structured as follows: first, in Section II we address the potential role of the economist as witness in the assessment of damages and pay specific attention to the assessment of pure economic loss and non-pecuniary losses. Subsequently, we address the role of experts in general in the assessment of damages from an economic perspective. We first discuss arguments in favour of involving experts in Section III, followed by potential dangers in Section IV. In this respect, we also incorporate insights from behavioural Law and Economics which suggest that experts, just like any other person, are subject to a variety of biases. Finally in Section V we discuss possible solutions for the aforementioned problems and in Section VI we draw our conclusions.

II. The (legal) economist as an expert

1. Goals of the law of damages

In order to analyze the role of experts in assessing damages in a tort case, it is important to determine the precise goals of the law of damages. The “adequate” amount of damages will unavoidably depend upon the goals the damages have to serve. If the goal of awarding damages would primarily be to compensate the victim, then damages should be assessed

4 See Denis Waelbroeck, Donald Slater and Gil Even-Shoshan, *Study on the Conditions of Claims for Damages in Case of Infringement of EC Competition Rules – Comparative Report* (Brussels: Ashurst, 31 August 2004).

5 See in this respect *inter alia* Michael Mandel, “Going for the Gold: Economics as Expert Witnesses”, 13 *Journal of Economic Perspectives* (1999), pp. 113 *et seq.*

6 See Michael Brookshire and Frank Slesnick, “Prevailing Practice in Forensic Economics”, 10 *Journal of Forensic Economics* (1997), pp. 1 *et seq.*; Robert Thornton and John Ward, “The Economist in Tort Litigation”, 13 *Journal of Economic Perspectives* (1999), pp. 101 *et seq.*

taking into account that the victim should, as much as possible, be returned to the situation without the accident. If, however, the goal is rather to provide incentives to the injurer to take optimal care, then the damages should be high enough to provide the injurer with those incentives, but not too high, since this could lead to inefficiently high care and/or a too low activity level. Moreover, a too high amount of damages could diminish the incentives for the victim to spend optimal care in order to reduce the accident risk as well.

In the legal literature, a variety of goals is identified as far as the law of damages is concerned. Traditionally, compensation of damage is seen as the main goal of the law of damages.⁷

In the economic approach to accident law, prevention in the sense of minimization of accident costs is regarded as the central goal. The duty of the injurer to compensate the victim is thus seen as an instrument to provide correct behavioural incentives. The foresight to have to pay compensation to the victim provides the potential injurer with incentives to take care in order to reduce the probability of the accident and/or the amount of the damage. The injurer can equally reduce his activity level as a way to minimize his expected liability costs.

We follow this view of Law and Economics. This implies that the damages should be assessed in such a way that the parties involved obtain incentives to take optimal care. The latter implies that in their decision to take care, the parties will weigh the costs of additional care versus the benefits in a further reduction of expected damage (being the probability of an accident multiplied with the magnitude of the damage). In addition, the parties involved will also have to weigh the advantages they gain from the activity against the total costs (including costs of care and expected damage) in order to determine an appropri-

ate activity level. From an economic perspective, the optimal level of care and activity can be found where the total social costs of accidents (being the costs of care, the expected damage and the administrative costs of applying the legal rules) are minimized.⁸ It is important to keep these goals of the law of damages in mind since they determine the questions which the expert will have to answer.⁹

2. Accuracy in the assessment of damages

In order to provide correct behavioural incentives to the parties involved, the amount of damages awarded should not systematically deviate from the social costs caused by the injurer. A systematic underestimation of the losses or neglecting certain components of the losses would result in too few care incentives for the injurer and/or a too high activity level, and the mirror-image of these problems for the victim. The latter is only relevant if the victim can also influence the accident risk, the so-called bilateral case. Systematic overestimation of the losses or compensating components of losses which do not result in a social loss lead to the opposite problem of too much care and a too low activity level of the injurer and potentially too little care and a too high activity level of the victim. This already shows that in the determination of the amount of damages as well as the components of the losses which should be compensated, economists can play an important role. We will provide several examples of this in Section II.3 below.

However, there is an interesting literature regarding the issue whether it is necessary that damages are assessed accurately in each case. A first element that plays a role in that respect is that an accurate assessment of damages also increases the administrative costs of handling tort cases.¹⁰ A concrete as-

7 See, for example, Simon Deakin, Angus Johnston and Basil Markesinis, *Markesinis and Deakin's Tort law*, 6th ed. (Oxford: Clarendon Press, 2008), at p. 52; Dan Dobbs, *The law of torts* (St. Paul, Minnesota: West Publishing Co., 2000), at pp. 12, 13; John Fleming, *The law of torts*, 8th ed. (Sydney: Law Book Company, 1992), at p. 1; Page Keeton et al., *Prosser and Keeton on the Law of Torts*, 5th student ed. (St. Paul, Minnesota: West Publishing Co., 1984), at pp. 5, 6; Ulrich Magnus, "Comparative Report on the Law of Damages", in Ulrich Magnus (ed.), *Unification of Tort Law: Damages* (The Hague: Kluwer Law International, 2001), pp. 185 et seq., at p. 185; Horton Rogers, *Winfield & Jolowicz on Tort*, 17th ed. (London: Sweet and Maxwell, 2006), at pp. 2, 3.

8 This basic insight follows from the early writing of Guido Calabresi, *The Costs of Accidents. A Legal and Economic Analysis*, 5th printing (New Haven, Connecticut: Yale University Press, 1977)

and has been worked out *inter alia* by Steven Shavell, "Strict Liability versus Negligence", 9 *Journal of Legal Studies* (1980), pp. 1 et seq.; Steven Shavell, *Foundations of Economic Analysis of Law* (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2004), at pp. 178 et seq.; Richard Posner, *Economic Analysis of Law* (New York: Aspen Publishers 6th edition, 2003), at pp. 167 et seq.

9 See in this respect also Thornton and Ward, "Economist in Tort Litigation", *supra* note 6.

10 These costs are referred to by Calabresi as the so-called "tertiary accident costs" and would by some be referred to as "transaction costs". However, since formally no transactions take place between a victim and an injurer in a tort case, we rather refer to these as "administrative costs".

assessment of damages is therefore necessarily more expensive than an abstract assessment.¹¹ In the economic literature, a saving in administrative costs is exactly seen as one of the advantages of the so-called abstract assessment of damages. In situations where the abstract method leads to a good approximation of the real losses suffered by the victim, the saving in administrative costs is likely to outweigh the costs of relatively small mistakes in the assessment of damages. Material damage to cars is an example of this situation. This type of loss occurs so often that in practice in many countries the damage will be assessed in an abstract way. Either the costs will be estimated which would be charged by a competent mechanic (irrespective of whether the victim actually has his car repaired by one) or, in case of a total loss, the value of the car is estimated on the basis of abstract elements such as the age, number of kilometres driven, type of car et cetera (irrespective of the actual value the victim could still obtain for the damaged car). These are examples where the legal system clearly prefers an abstract assessment since a concrete assessment would lead to substantially higher administrative costs which would not substantially improve the care incentives of the injurer.

Second, one has to keep in mind that the incentives provided by accident law to take care and adapt

the activity level work *ex ante*, before the accident occurs. This implies that the economic model assumes that the potential injurer adapts his behaviour to the foresight to be held liable. *Ex ante* it is not known to the injurer how high the exact amount of the losses will be. Hence, the injurer will adapt his behaviour on the basis of an *estimation* of the losses he could cause. A more accurate damage assessment *ex post* would therefore not necessarily result in better behavioural incentives *ex ante*. As long as the losses will on average be correctly assessed by courts, potential injurers receive appropriate behavioural incentives, even if the assessment of damages in a specific case is not always accurate.¹² A disturbance of behavioural incentives would only occur if systematic errors in the assessment of damages would take place.¹³ Systematic errors could occur if specific components of the losses are wrongly included or excluded in the damages or if the total amount of losses would systematically be under- or overestimated. Some examples of these potential errors can be provided, indicating how economists can play a role in determining the components of losses which should be subject of compensation.

3. Examples of “problematic” components of the losses

The goal of prevention requires that damages are based on the social costs caused by the injurer and that compensation is in principle full.¹⁴ The practice concerning the law of damages in many (European) countries deviates on a number of important aspects from this starting point of full compensation. Here we discuss the examples of pure economic loss and non-pecuniary losses. We also show the role the economist could play as expert, to better adapt the damages to the principle of a full compensation of the social loss. More examples could be given of situations where the law of damages in various legal systems does not follow the economic starting points and therefore shows particular inefficiencies. A well known example in this respect is the problem of the non-pecuniary loss suffered in case of the death of a child. The systematic undercompensation of this damage leads to, as has been repeatedly stressed by economists, too few incentives for the potential injurer and therefore to a reduced internalization of social costs.¹⁵ Another example constitutes the fact that in many European legal systems the amount of

11 See Jaap Spier, *Verbintenissen uit de wet en schadevergoeding*, 3rd ed. (Deventer: Kluwer, 2003), at p. 207.

12 See for a similar conclusion Florian Baumann and Tim Friehe, “On the Superiority of Damage Averaging in the Case of Strict Liability”, 29 *International Review of Law and Economics* (2009), pp. 138 *et seq.*

13 This point has been made by Louis Kaplow and Steven Shavell, “Accuracy in the Assessment of Damages”, 39 *Journal of Law and Economics* (1996), pp. 191 *et seq.*; Louis Kaplow and Steven Shavell, *Fairness versus Welfare* (Cambridge, Massachusetts: Harvard University Press, 2002), at pp. 265 *et seq.*

14 A difference exists in that respect between strict liability and negligence: under strict liability, compensation should be full since this will provide incentives to the potential injurer to correctly weigh costs and benefits of additional care. Under a negligence rule, full compensation is not necessary. As long as the court bases the level of due care on a weighing of costs and benefits of care, the damages should only be high enough to make it financially more attractive for the injurer to take due care (thus avoiding liability) than to be negligent (thus paying the compensation). This difference between strict liability and negligence has been proven by Robert Cooter, “Prices and Sanctions”, 84 *Columbia Law Review* (1984), pp. 1343 *et seq.* For practical purposes in this paper we, however, refer to a necessity of “full compensation” although the reader should be aware that this is formally only required under a strict liability rule, not under negligence.

15 For a summary of this literature see Michael Faure, “Compensation of Non-pecuniary Loss: An Economic Perspective”, in Ulrich Magnus and Jaap Spier (eds), *European Tort Law. Liber Amicorum for Helmut Koziol* (Frankfurt am Main: Peter Lang Verlag, 2000), pp. 143 *et seq.*

damages is limited to the real loss suffered by the victim. Economists have demonstrated that this leads to too few care incentives in cases where the probability of detection is lower than 100 %. In such a situation the injurer should be held to pay an amount of damages which is substantially higher in order to remedy the too low probability of detection. This is the main economic justification for awarding so-called punitive damages in tort.¹⁶ It would lead us too far to discuss these examples here in further detail. Therefore, we merely provide two examples to show how economic expertise can contribute to a correct assessment of damages.

a. Pure economic loss

Comparative overviews concerning the law in relation to pure economic loss show that the solutions adopted in this domain are quite diverging.¹⁷ Legal scholars, for example in the Netherlands, are critical of the fact that in particular cases pure economic loss is excluded from compensation whereas they argue that compensation should be possible.¹⁸ Even though the economic approach to pure economic loss is not straightforward,¹⁹ the mainstream view in Law and Economics is that pure economic loss should only be compensated if it results in a social loss. Bishop held that in so-called “breach of a cable” cases²⁰ there is no social loss since the profit which is lost by the victim will be gained by other similar enterprises. In that particular case there is a redistribution of social welfare, but not necessarily a decrease. This hence constitutes a case where Bishop held that pure economic loss should not be compensated.²¹ This starting point has later been refined in further Law and Economics studies.²² More recent literature shows that in some cases there is actually a social loss, for example if the replacing product does not constitute a perfect substitute or if the production costs of the substitute are higher. Also, the reasoning of Bishop that other enterprises could take over the business of the victim supposes that these other enterprises have an excess capacity. This as such would be inefficient and could lead to a decrease of social welfare. Moreover, in addition to the “cable cases” many other examples exist where pure economic loss can emerge which can create a social loss. An example is the case of an accountant who wrongfully approves the balance sheets of an enterprise, whereby subsequently someone buys shares on the basis of this approval

and most likely pays a too high price. The seller of the shares receives a too high price, which constitutes a redistribution of welfare. However, the money which is now additionally invested in this enterprise could probably have led to greater social welfare if it were invested in another enterprise. As a result of the wrongful approval of the balance sheet, one can thus hold that a social loss was caused. Moreover, the wrongful approval will lead to a reduction of trust in information provided by balance sheets, which is socially undesirable. In this particular example, liability of the auditor for pure economic loss may provide him with desirable behavioural incentives. The same can be argued if an employee is not able to work during a certain period, as a result of a tort committed by a third party. If the employee would not receive wages he could claim compensation for loss of income from the tortfeasor, thus exposing the tortfeasor to additional costs and creating behavioural incentives. If, however, the employer would continue to pay the wages, the employee does not suffer any loss, but the employer suffers a pure economic loss.

16 Mitchell Polinsky and Steven Shavell, “Punitive Damages: An Economic Analysis”, 111 *Harvard Law Review* (1998), pp. 869 *et seq.*; see also Louis Visscher, “Economic Analysis of Punitive Damages”, in Helmut Koziol and Vanessa Wilcox (eds), *Punitive Damages: Common Law and Civil Law Perspectives* (Vienna: Springer, 2009), pp. 219 *et seq.*, at pp. 222 *et seq.*

17 See, for example, Mauro Bussani and Vernon Palmer (eds), *Pure Economic Loss in Europe* (Cambridge: Cambridge University Press 2003) and Mauro Bussani, Vernon Palmer and Francesco Parisi, “Liability for Pure Financial Loss in Europe: An Economic Restatement”, 51 *American Journal of Comparative Law* (2003), pp. 113 *et seq.*

18 Maurits Barendrecht, “Pure Economic Loss in the Netherlands”, in Ewoud Hondius, *Netherlands Reports to the Fifteenth International Congress of Comparative Law* (Groningen: Intersentia Rechtswetenschappen, 1998), pp. 115 *et seq.*; Jan van Durné, “Liability for Pure Economic Loss: Rule or Exception? A Comparatist’s View of the Civil Law – Common Law Split on Compensation of Non-Physical Damage in Tort Law”, 7 *European Review of Private Law* (1999), pp. 397 *et seq.*

19 For a nuanced summary of the literature in this respect see Jef De Mot, “Pure Economic Loss”, in Michael Faure (ed.), *Tort Law and Economics* (Cheltenham: Edward Elgar, 2009), pp. 201 *et seq.*

20 These are cases where e.g. a contractor breaches a utility cable as a result of which a firm loses profit because it has to close down temporarily for being out of electricity. The question then arises whether the economic loss suffered by the enterprise has to be compensated by the contractor.

21 See William Bishop, “Economic Loss in Tort”, 2 *Oxford Journal of Legal Studies* (1982), pp. 1 *et seq.*; see also the special of the *International Review of Law and Economics* (2007), pp. 1–110.

22 For an overview of the economic literature in this domain see Giuseppe Dari-Mattiacci, “The Economics of Pure Economic Loss and the Internationalization of Multiple Externalities”, in Willem van Boom, Helmut Koziol, and Christian Witting (eds), *Pure Economic Loss. Tort and Insurance Law* (Vienna: Springer 2004), pp. 167 *et seq.*

If in that particular case the tortfeasor would not have to compensate the wages paid by the employer, too few care incentives would be given to potential tortfeasors.

The examples show that the problem with pure economic loss is that the private loss suffered by the victim is not necessarily equal to the social loss. The law of damages primarily focuses on the private loss sustained by the victim, whereas from an economic perspective (in order to provide correct incentives to the potential injurer) the social loss should be decisive. In this respect an economist can play a useful role when assessing damages. Suppose, for example, that an enterprise as a result of a breach of a cable cannot produce and thus not make a profit. However, consumers purchase a substitute product. Economically speaking, the social loss consists *inter alia* in the loss of consumer surplus (this is the benefit that consumers obtain since they consider the product they have purchased more valuable than the price they pay). This loss will more particularly occur if consumers consider the replacement product an inferior substitute or if consumers would decide not to purchase the replacement at all. In order to determine changes in consumer surplus, information is needed on the demand and supply of the particular product, possibilities of replacement for the consumer, including availability of substitutes et cetera. This supposes an econometric exercise which does not belong to the standard equipment of a tort lawyer.

In this respect we have to repeat that the costs which are invested in a better assessment of the damages should be weighed against the advantages as far as the improvement of the incentives for prevention is concerned. This implies that, if it is for example very difficult to assess the social loss, but it is on the other hand clear that this loss is relatively small, it may be indicated not to award damages at all, simply because the costs of damage assessment would be too high. In that particular case one can argue that the saving in administrative costs (of damage

assessment) outweighs the reduction of behavioural incentives. If, on the other hand, the social loss can be considered large (even though it may be difficult to assess in detail) then it may be indicated to compensate the pure economic loss sustained.²³ The effect will be that potential injurers will take the pure economic loss they could cause by their actions into account when deciding on their level of care and activity, even if it is difficult to establish whether the social loss is larger or smaller than the (private) pure economic loss suffered. As we have shown, the assessment of the pure economic loss itself can also require the intervention of an economist, for example if lost profit has to be assessed.

b. Personal injury damage

In personal injury cases many problems occur which are directly connected to the assessment of the correct amount of damages. Again, various examples can show that an economist can provide an important contribution to an adequate assessment of damages. Two examples can illustrate this contribution.

aa. Lost income after an accident

If someone has been involved in an accident, he may lose the ability to work for a certain period and hence (depending upon whether the employer is under the obligation to continue to pay) lose income.

In assessing the damages that a victim should receive, many economic indicators play a role. Depending upon his situation (self-employed or employee, temporary or permanent disability et cetera) an assessment will be made of the expected evolution of the career of the person involved, his life expectancy and the corresponding development in salary. In case the compensation is capitalized (paid in one time), in addition a discount rate has to be applied which *inter alia* depends upon the interest rate applicable.

Lewis *et al.* show that insights from labour economics can have an important influence on the assessment of damages for loss of future earnings.²⁴ They show that in England and Wales courts traditionally assessed damages based on their intuition and prior decisions (precedents), but increasingly also use statistical information. The authors describe, on the basis of a review of case law, how the courts proceed. First, the courts assess the income

23 With this we do not suggest that it would be socially optimal never to award compensation for small losses, due to administrative costs. This could be problematic since the activity may shift to cause several small losses instead of a few larger ones. Moreover, if the court system works well, there may be fewer cases and thus administrative costs can be lower since parties could anticipate the results of the court case and would thus settle.

24 Richard Lewis, Robert McNabb, Helen Robinson and Victoria Wass, "Court Awards of Damages for Loss of Future Earnings: An Empirical Study and an Alternative Method of Calculation", 20 *Journal of Law and Society* (2002), pp. 406 *et seq.*, at p. 412.

that, as a consequence of the tort, is lost per year. No account is taken of potential future increases in the income since this would be considered speculative. Next, this amount is multiplied with a factor expressing the number of years the victim would still have worked until his probable retirement date. This factor is then reduced with a discount rate in case the victim receives the capitalized amount at once (having the ability to invest the capital and obtain a return on the investment). In addition, the factor will be reduced to incorporate the probability of an early death, the risk of a long-lasting disease, unemployment et cetera. However, in assessing this reduction factor, the court has a large margin of discretion. If the victim would, as a result of the accident, likely have more difficulty to either keep his job or to find another job, an additional amount will be awarded to compensate for this worsened position on the labour market resulting from the accident. This latter amount is known as a *Smith v. Manchester payment*, named after the case in which it was first applied.²⁵

In the United States, courts make much more use of insights from labour economics to predict future income developments and employment possibilities of a victim after an accident. Differently than in the above-described English method, U.S. courts apply a multiplier to express the expected individual and social productivity growth. The amounts thus obtained will be cumulated over the period in which the victim would normally still be working (assuming a complete disability to work), whereby the risk of unemployment and death are taken into account. On the resulting amount the discount rate is applied. If the victim has obtained a less favourable position on the labour market as a result of the accident, this is taken into account in the phase where the yearly amounts are calculated.²⁶

Since in the U.S. both the expected individual and social productivity growths are taken into account, damage awards are generally larger in the U.S. than in the U.K. Furthermore, the U.S. model better takes into account that an accident may have a lasting influence on the career of the victim. The English method only insufficiently takes into account the influence of temporary unemployment and a lasting inability to work on a future career. The authors therefore propose an alternative method of damage assessment for England and Wales, which is largely based on the American method. They apply the new method to more than hundred cases and show that this would have led to a higher amount of damages in

88 % of the cases. In more than half the cases, damages would even have been at least 50 % higher, and in a third of all cases, damages would at least have been doubled under the new method.

These large differences in the resulting compensation for lost earnings show once more the importance of a correct use of insights from labour economics, irrespective of whether the goal of awarding damages is considered to be prevention or compensation. The example shows that a labour economist may provide a valuable contribution to the quality of the decision-making by the judiciary.

bb. Compensation in case of death

Many differences exist as far as the compensation for fatalities is concerned. In the words of Rogers: “No system (...) now allows damages to the estate of a victim for the fact of death itself, though there are wide variations with regard to claims by relatives.”²⁷ Clearly, because the life of the deceased as such is not considered an element of the compensation due by the injurer, the damage assessment will not correspond with the social loss and underdeterrence will occur.²⁸ However, even in systems where some compensation for non-pecuniary losses is awarded, it is questionable whether these (often standardized) amounts correspond with the valuation of life from an economic perspective. Lawyers sometimes reject economic assessments of life, arguing that life is invaluable and thus should not be discussed in economic terms. However, rejecting an economic approach in the valuation of life results in precisely the opposite result as the one desired by the lawyers, being that life is either valued at zero or at too low an amount when it comes to damage assessment by courts. This may very well result in underdeterrence. The question therefore arises whether economics can provide insights into the difficult issue of determining appropriate damages for fatalities.

25 Lewis *et al.*, “Loss of Future Earnings”, *supra* note 24, at p. 414.

26 *Ibid.*, at p. 415.

27 Horton Rogers, “Comparative Report of a Project Carried Out By the European Centre for Tort and Insurance Law”, in Horton Rogers (ed.), *Damages for Non-Pecuniary Loss in a Comparative Perspective* (Vienna: Springer, 2001), pp. 245 *et seq.*, at p. 247.

28 Of course we do realise that, especially to the extent that personal injury or death are caused intentionally, criminal law may apply and may provide incentives for prevention as well. Here, however, we focus on incentives provided by tort law. For the possible role of punitive damages in this respect, see *supra* note 16.

There is a broad economic literature on the so-called Value of a Statistical Life (VSL). This value is deduced from many decisions that people take and which have an influence on health and safety. Many of those decisions contain an implicit trade-off between money and risk. Examples are the decision whether or not to purchase an airbag, to install smoke detectors, to buy and use dangerous products et cetera. For example, if a person is willing to spend € 1,000 on a safety measure which reduces the probability of death with 1 ‰, one can argue that this person values this reduction at at least € 1,000. This information shows that the value of a statistical life (on the basis at least of this decision) would be at least € 1,000,000. The value of a statistical life encompasses both material and immaterial losses due to the fatality. It is possible to relate the value of a statistical life which is found in a study to the remaining life expectancy of the subjects under investigation, to derive the value of a statistical life year. In a review article Viscusi and Aldy discuss more than 60 studies into the value of a statistical life.²⁹ Even though the values found in the various studies diverge, on average the value of a statistical life in 2004/2005

was assessed at approximately \$6.1 million.³⁰ The authors show that the results from these American studies are comparable with the value of a statistical life in other developed countries.³¹ These studies also show that the value of a statistical life is *de facto* (appearing from these economic studies) much higher than the compensation which is awarded by courts in case of an accidental death. This implies that this compensation is also much too low to provide correct behavioural incentives to potential injurers. This hence constitutes an example where economists can pay an important contribution to a more adequate assessment of damages.

An alternative approach focuses solely on the immaterial losses caused by health impairments. In the field of health economics the concept of so-called Quality Adjusted Life Years (QALYs) is used to assess the benefits of a medical treatment. It is a measure to assess the value of living one year in a certain health condition, whereby “1” is perfect health and “0” would be death. There is literature attempting to monetize a QALY, but the resulting assessments diverge. An overview of literature which attached a money value to a QALY³² indicates that authors who have calculated the “willingness to pay” for a QALY reach a value of about €74,000 to €110,000. Others look for the limits below/above which an additional QALY is worth/not worth its costs and arrive at an upper limit of about €174,000. The famous “kidney dialysis value”, which is based on the consideration that kidney dialysis is regarded as a method which is (more than) worth its costs, poses a lower limit of about €80,500 to €103,500 for one QALY.³³ The English National Institute for Clinical Excellence (NICE) uses a lower limit of about €24,500 to €49,000, which in most literature is regarded as too low.³⁴ In an overview from 2000, where the value of a QALY is deduced from VSL-research, an amount of €225,000 is mentioned as median value of the different estimates (28 of the 35 estimates exceed €85,000).³⁵ Another review article from 2000 calculated a mean of about €121,500.³⁶ Very recently, the EuroVaQ project which aimed at developing robust methods to determine the monetary value of a QALY across a number of European Member States has published its final report. According to this report, the overall mean amount over all ten countries is, depending on the methodology applied, at most about \$61,500 (\$131,500 if the outliers are not trimmed).³⁷ Suppose for example that a QALY would be conservatively valued at €50,000 and that a victim deceases as a result of an

29 Kip Viscusi and Joseph Aldy, “The Value of a Statistical Life: A Critical Review of Market Estimates throughout the World”, 27 *The Journal of Risk and Uncertainty* (2003), pp. 5 et sqq.

30 Cass Sunstein, “Lives, Life-Years, and Willingness to Pay”, 104 *Columbia Law Review* (2004), pp. 205 et sqq., at p. 205; Eric Posner and Cass Sunstein, “Dollars and Death”, 72 *University of Chicago Law Review* (2005), pp. 537 et sqq., at p. 563.

31 Viscusi and Aldy, “Value of a Statistical Life”, *supra* note 29, at p. 63.

32 Don Kenkel, “WTP- and QALY-Based Approaches to Valuing Health for Policy: Common Ground and Disputed Territory”, 34 *Environmental & Resource Economics* (2006), pp. 419 et sqq., at p. 421.

33 See also Milton Weinstein, “Spending Health Care Dollars Wisely: Can Cost-Effectiveness Analysis Help?”, *Sixteenth Annual Herbert Lourie Memorial Lecture of Health Policy* 2005, at pp. 5, 6; Orley Ashenfelter, “Measuring the Value of a Statistical Life: Problems and Prospects”, 116 *The Economic Journal* (2006), pp. C10 et sqq.

34 See, e.g., Nancy Devlin and David Parkin, “Does NICE have a Cost Effectiveness Threshold and What Other Factors Influence its Decisions? A Binary Choice Analysis”, 13 *Health Economics* (2004), pp. 437 et sqq., at p. 450.

35 Richard Hirth, Michael Chernew, Edward et al., “Willingness to Pay for a Quality-adjusted Life Year: In Search of a Standard”, 20 *Medical Decision Making* (2000), pp. 332 et sqq., at pp. 338, 340.

36 Ted Miller, “Valuing Nonfatal Quality of Life Losses with Quality Adjusted Life Years: The Health Economist’s Meow”, 13 *Journal of Forensic Economics* (2000), pp. 145 et sqq., at p. 161.

37 EuroVaQ, *European Value of a Quality Adjusted Life Year – Final Report* (2011), available on the Internet at <http://research.ncl.ac.uk/eurovaq/EuroVaQ_Final_Publishable_Report_and_Appendices.pdf> (last accessed on 5 August 2011), at pp. 72, 74.

accident. If the health condition of the victim prior to the accident would for example be 0.8 (meaning that the person was not in perfect health) and his remaining life expectancy would be 20 years, the resulting compensation for the accidental death would amount to the present value of 20 years times € 50.000 times 0.8 QALY, which would (with an interest rate of 4 %) amount to about € 565.000.³⁸ This concept could also be used in case of non-fatal accidents to assess the non-pecuniary losses resulting from a disability.³⁹ Suppose that the medical consequences of an accident could be valued at 0.1 QALY and that the victim experiences these consequences for a period of two years. The resulting compensation should then (disregarding calculating the present value) be € 50.000 x 2 x 0.1 = € 10.000. This concept of QALY would allow a more rational and accurate assessment of damages in personal injury cases. However, more research may be needed before QALYs can really be used in concrete court cases. In any case, this again shows that insights from economics can play a crucial role in a more accurate, but not necessarily more costly assessment of damages.

III. Why an expert?

So far, we have addressed the role of the economist as expert in the assessment of damages. We now turn to the other aspect we announced to address in our introduction, being the role of the expert from an economic perspective.

A first question that arises in this respect is why experts should be involved in damage assessment in the first place. Several economic arguments can support such an involvement. First of all, the expert usually has superior knowledge of his own area of expertise (e.g. medicine). He therefore can obtain information at lower costs than the parties themselves or the court. A simple argument can therefore be made that involving an expert can lower information costs. Since we stressed that the economic goal of accident law is to minimize the *total* accident costs (thus including administrative costs) this seems a desirable effect.⁴⁰

Second, we already showed that an expert can provide better information than the parties or the court. Involving an expert can hence make the damage assessment more accurately represent social costs. This allows accident law to better reach its goal of prevention. The reason why the expert would be better able

to provide the relevant information than the parties involved or the court, lies in his education and his studies as well as his prior experience. The expert is undoubtedly better informed about the latest developments in his area of expertise than the court and has gained more relevant insights.

Both advantages, information of higher quality and lower costs, are interconnected. The fact that the expert can provide information at lower costs is not only the result of his education and training, but also a consequence of experience and the degree of specialization. Since an expert is regularly confronted with similar types of questions (for example related to lost earnings after an industrial accident) he enjoys the advantage of the “repeat player”.⁴¹ Being a repeat player, he can use the prior experience to obtain accurate information more quickly (and hence at lower costs) than someone else could. A court in most legal systems is not specialized to this extent. Even if a judge would only be handling personal injury cases (and would thus be specialized in damage assessment), the different cases are usually so diversified that a judge will never obtain a high degree of expertise with respect to all of these cases. Developing such an expertise would lead to disproportionately high costs. From a social perspective, in complex cases it therefore seems desirable not to ask a judge to invest in allowing him e.g. to accurately assess damages resulting from lost earnings himself. The socially preferable solution is to use the experience of the expert who will be able to answer particular questions at relatively low costs and who can hence inform the court. It is, in other words, the simple economics of labour specialization that explains why it makes sense to use experts in complex cases of damage assessment.

A subsequent advantage can be obtained if an independent expert is used. A problem with the information provision by the parties involved in the tort

38 A further refinement could consist of taking into account that with increasing age the QALY will decrease (as a result of elderly illnesses et cetera), in which case the compensation would also be lower.

39 See Vaia Karapanou and Louis Visscher, “Towards a Better Assessment of Pain and Suffering Damages”, 1 *Journal of European Tort Law* (2010), pp. 48 et seq.

40 Calabresi, *The Costs of Accidents*, supra note 8, at pp. 24 et seq.

41 Mark Galanter, “Why the ‘Haves’ Come Out Ahead: Speculations on the Limits of Legal Change”, 9 *Law & Society Review* (1974), pp. 95 et seq., at p. 97.

case is that they have, to a large extent, opposing interests.⁴² To exaggerate slightly: a victim has an interest in overstating the losses, whereas the injurer will have an incentive to downplay the losses. If parties take such contradictory points of view, it may become difficult to obtain an accurate assessment of the situation. An independent expert can focus entirely on the question how the losses in a specific case should be assessed as adequately as possible. He is not exposed to strategic considerations providing incentives to increase or reduce the amount of the damages. The latter risk of course still exists when so called party experts are involved. This is a specific issue which we will address in further detail in Section IV.

Even though the involvement of experts in damage assessment can, under certain circumstances, be positively evaluated,⁴³ from an economic perspective there are not only advantages. Also in the legal discourse, many scholars have pointed at disadvantages of involving experts in a case. Meadow and Sunstein have powerfully argued that a court should rather rely on statistical information than on subjective (and thus less reliable) impressions of experts, for example in cases of medical malpractice.⁴⁴

IV. Potential problems with experts

1. Is the expert always an expert?

There is extensive empirical research, more particularly in the so-called domain of behavioural Law and Economics, showing that also experts are subject to all kinds of “biases”. The most general bias from which experts suffer is a too large trust in their own

expertise. This is referred to as “*overconfidence*”. Various studies have provided evidence of this overconfidence. It was for example shown that experts had largely overestimated the precision with which one could predict the likelihood of a meltdown of the nuclear core in a nuclear installation. Experts also showed an irresponsible large trust in the stability of the Teton Dam, notwithstanding several problems that had occurred during the construction of the dam. The Teton Dam eventually collapsed in 1976.⁴⁵ Slovic and others point at several factors which cause experts to grossly underestimate specific risks and catastrophic events. It concerns *inter alia*:

- The failure to recognize that human failure can substantially influence the effectiveness of technological systems. This became clear after the nuclear incident at Three Mile Island where operators repeatedly wrongly assessed problems with the nuclear reactor and failed to intervene on time;
- Overestimating the current level of scientific development and knowledge;
- Underestimating the integral functioning of technological systems. Engineers for example failed to discover that the reason for the failure of the DC-10 after its first flights was a decompression in the cargo part of the plane which led to a destruction of vital control systems;
- A well known problem with experts is also that they make mistakes in assessing probabilities. The latter is referred to as “*calibration*”. Physicians for example systematically overestimate the likelihood of survival of a patient with cancer.⁴⁶ These calibration errors are highly relevant for the assessment of damages. Experts, for example, also appear to make mistakes when assessing the likelihood that a particular disease of a patient has been caused by work related circumstances. Experts often overestimate probabilities, which again is a consequence of overconfidence. Experts base their assessment of probabilities often on theoretical models which themselves are based on subjective assumptions. Research where both laymen and experts were asked to assess a particular risk (more particularly the probability of death following from asthma) showed that experts do not assess the probability substantially better than laymen.⁴⁷ Problematic is especially the fact that similar research also shows that the assessments by the experts do not substantially improve when they are provided additional information. The task to assess risks (for example of death resulting from

42 This is to a large extent due to the adversarial trial. Thus it is often forgotten that in a way parties also have concurring interests, such as the quick resolution of the case at relatively low costs.

43 See in that respect also Mandel, “Going for the Gold”, *supra* note 5, at p. 116.

44 William Meadow and Cass Sunstein, “Statistics, Not Experts”, 51 *Duke Law Journal* (2001), pp. 629 *et seq.*

45 For a summary of these studies see Paul Slovic, Baruch Fischhoff and Sarah Lichtenstein, “Rating the Risks”, in Paul Slovic (ed.), *The Perception of Risk* (London: Earthscan Publications Ltd., 2000), pp. 104 *et seq.*, at pp. 109–110.

46 Meadow and Sunstein, “Statistics, Not Experts”, *supra* note 44, at p. 634.

47 See Gene Rowe and George Wright, “Differences in Expert and Lay Judgments of Risks: Myths or Reality?”, 21 *Risk Analysis* (2001), pp. 341 *et seq.*, at p. 342.

- an exposure to particular substances) therefore appeared not to be “learnable”⁴⁸;
- An important bias that may play a role in the field of liability law is the so-called anchoring. Anchoring occurs when experts focus on a particular anchor that was provided and hence allow only small deviations from the anchor.⁴⁹ This anchoring can play an important role in liability cases e.g. when the plaintiff’s attorney presents a claim for an excessive amount. Even though the expert (or later the judge) may understand that the claims are much too high, asking for a higher compensation can still lead to relatively small deviations from the “anchor” and hence to higher awards.

This empirical research therefore shows that, especially as far as calibration (assessment of risks) is concerned, there is ample reason not to trust experts blindly, but to approach the material provided by the expert with a critical mind.

2. Monopoly on the information?

When experts are awarded an essential role in damage assessment, the danger exists that they obtain a powerful position which they could potentially abuse. The advantage of experts, being that they have better information than the parties involved and than the court, at the same time creates the danger that this informational advantage may be abused to their own benefit. Parker stresses this problem in a detailed study concerning the American rules related to the admissibility of scientific evidence.⁵⁰ His reasoning, however, applies equally to the role of experts in the assessment of damages. Producing information creates costs and people can try to make a profit out of this. By involving experts in damage assessment, an interest group is created which can try to serve its own interests, even when these interests do not necessarily align with those of the parties involved, the court, et cetera. Parker holds that the goal of procedural law is to exclude these so called “public choice” problems as much as possible from the civil trial. One way of doing this is by organizing the system in such a way that only the parties involved have an interest in the outcome of the case.⁵¹ However, the expanding scope of liability and increasing amounts of compensation lead to increasing “returns on litigation”. This means that parties are incentivised to rely on experts in order to increase their likelihood of a positive outcome in the case.⁵²

Empirical evidence shows that courts are sceptical concerning the results of an investigation by experts if the experts have been hired by the parties involved (see *infra* IV.3). These are often considered so called “hired guns”. On the other hand, empirical evidence shows that judges often have difficulties to understand the very complex expert testimony provided by the experts involved.⁵³ A problem with the expert testimony is that it can appear quite convincing for a judge. This is especially the case if an expert is used with an impressive résumé. This often leads to the situation that the judge believes the testimony provided by the expert, not because of the credibility of the testimony as such, but because it is delivered by the particular “expert”.⁵⁴

Tomlin and Cooper show that in court cases there is always the danger of the following downward spiral: if one party would involve an expert who would for example objectively and correctly assess the damage suffered by one party (supposedly the victim), there is a danger that this party loses if the defendant in the same case would use an expert who would subjectively trivialize the losses suffered by the victim. If both parties mutually expect that subjective information, for example concerning the loss suffered, will be presented, this may lead to a type of prisoner’s dilemma. Here, one party cannot afford to be less exaggerating in the positive or negative sense than the other party. Not engaging in these exaggerations may cause the party who provides objective information to lose

48 George Wright, Fergus Bolger and Gene Rowe, “An Empirical Test of the Relative Validity of Expert and Lay Judgments of Risk”, 22 *Risk Analysis* (2002), pp. 1107 *et seq.*, at p. 1110.

49 See Thomas Ulen, “Rational Choice Theory in Law and Economics”, in Boudewijn Bouckaert and Gerrit De Geest (eds), *Encyclopaedia of Law and Economics, Vol. 1, The History and Methodology of Law and Economics* (Cheltenham: Edward Elgar, 2000), pp. 790 *et seq.*, at pp. 804–806.

50 Jeffrey Parker, “Daubert’s Debut: The Supreme Court, The Economics of Scientific Evidence, and the Adversarial System”, 4 *Supreme Court Economic Review* (1995), pp. 1 *et seq.*

51 *Ibid.*, at p. 37.

52 *Ibid.*, at p. 47.

53 See Jonathan Tomlin and David Cooper, “When Should Judges Appoint Experts? A Law and Economics Perspective”, *Bepress Legal Series. Working Paper 1699* (2006), available on the Internet at <<http://law.bepress.com/expresso/eps/1699>> (last accessed on 5 August 2011), at p. 10.

54 See David Sarvadi and Amy Blackwood, “Expert Testimony in the Silica-Cases: The Fallacy of Scientific Objectivity – Some Observations”, 14 *Journal of Chemical Health & Safety* (2007), pp. 31 *et seq.*, at p. 34.

the case.⁵⁵ This hence leads to the situation that in a system where exaggerations by both parties (and their experts) are structurally possible, they engage in a game whereby none of them has sufficient incentives to provide objective and accurate information. As well known, the result of this prisoner's dilemma will be inefficient.

3. Expertise, objectivity and conflicts of interests

In Section III we have already mentioned the problem that party appointed experts can provide “coloured” information since they may be tempted to support the position of the party that has paid them. To the extent that these experts are better informed than the court, they could try to mislead the court and seek an outcome which is favourable to their principal. Related to this is the problem that the more wealthy parties may be able to hire more and/or better experts. This may again jeopardize the accuracy of the damage assessment.⁵⁶

A problem extensively dealt with in the literature concerns the issue that the mere fact of being paid by one of the parties may influence the quality of the opinion provided by the expert. In the words of Mandel: “money changes everything”.⁵⁷ Experts constitute no exception to that rule. This may be especially problematic in cases where no scientific certainty exists yet and hence differences of opinion may exist. This could lead a party to hire an expert of whom it is known (for example through his publica-

tions) that he has a favourable view on the position defended by that party.

In this respect, there is of course a difference between experts who systematically act in favour of one party (for example a liability insurer) and independent experts who are expert for the plaintiff in some cases and for the defendant in other cases. Especially if experts are either employees of one of the parties or systematically act for one type of party (e.g. corporate defendants) there is a serious danger of a conflict of interests which may influence the contents of the opinion provided by the expert. Again, this danger especially exists in domains which allow room for interpretation. But even in cases where the conflict of interests is less obvious (for example because the expert does not systematically act either for victims or for injurers), the mere fact that the expert is paid for his opinion will undoubtedly have an influence on the contents of the opinion. In the words of Sales and Shuman:

“There is a great deal of scepticism about expert evidence. It is well known that expert witnesses are often paid very handsome fees, and common sense suggests that a financial stake can influence an expert's testimony, especially when it is technical and esoteric and hence difficult to refute in terms intelligible to judges and jurors. More policing of expert witnessing is required, not less”.⁵⁸

Subsequent literature points to the fact that even if independent experts try to provide their expert testimony in an honest and objective way, the problem with party experts remains that they are hired by attorneys. The reason they are hired is precisely because it is expected that the expert testimony will provide support for the point of view developed by the lawyer. Especially in those cases where differences of opinion may exist and answers are not always clear cut, there will unavoidably be some pressure on the expert to provide testimony which is favourable to the position of the party who hired him.⁵⁹ Such differences of opinion may obviously also exist as far as the assessment of the losses suffered by the victim is concerned. A problem is that some lawyers can be very convincing and persuasive. They can hence exert an influence upon the expert to favour the position of their client.⁶⁰

There is empirical research which indeed suggests that there may be a problem of biased expert witnesses. In that research, among others the question was asked to judges and attorneys whether “experts abandon objectivity and become advocates for the

55 Jonathan Tomlin and David Cooper, “Expert Testimony, *Daubert*, and the Determination of Damages”, *4 Review of Law & Economics* (2008), pp. 213 *et seq.*, at pp. 220, 221.

56 Tahirih Lee, “Court-Appointed Experts and Judicial Reluctance: A proposal to Amend Rule 706 of the Federal Rules of Evidence”, *6 Yale Law & Policy Review* (1988), pp. 480 *et seq.*, at p. 482.

57 Mandel, “Going for the Gold”, *supra* note 5, at p. 113.

58 Bruce Sales and Daniel Shuman, *Experts in Court. Reconciling Law, Science, and Professional Knowledge* (Washington: American Psychological Association, 2005), at pp. 6, 7.

59 In the words of Thornton and Ward: “This tends to create strong if sometimes subtle pressure upon the economist to directly or indirectly advocate the position of the side that has hired him”; Thornton and Ward, “Economist in Tort Litigation”, *supra* note 6, at p. 106.

60 In the words of Mandel: “Lawyers are persuasive characters. If you're not prepared for it, you can find yourself saying things you would never say to your colleagues”; Mandel, “Going for the Gold”, *supra* note 5, at p. 119.

side that hired them". The mean score for the judges answering this question was 3.69 on a scale from 1 (very infrequent) to 5 (very frequent). The mean score for attorneys was 3.72.⁶¹

From an economic perspective the question arises whether the fact that experts are hired by parties necessarily jeopardizes an accurate assessment of damages. Tomlin and Cooper hold that as long as both sides exaggerate in the same way and the court subsequently chooses an average position, the outcome may be approximately right.⁶² If the actual damage would be €100,000, whereas the expert for the plaintiff estimates the damage at €150,000 and the expert for the defendant at €50,000, there should not necessarily be a problem as long as the court assumes that the truth is in the middle and hence estimates the damage to be €100,000. However, an important assumption in this example is that the amount in which both sides exaggerate their estimation is about equal and, moreover, that the court is aware of this. As we will illustrate in Section V below, this is not always a realistic assumption in practice. In reality there may be many asymmetries and the court may not know which expert is exaggerating more.

It is important to stress that (mainly American) Law and Economics literature has powerfully argued that legal control mechanisms exist which may prevent the quality of expert testimony to be influenced by a conflict of interests in such a way that it would not be usable in court. We will address some of these control mechanisms in the following section.

V. Possible solutions

We have sketched several problems that may appear when involving experts in the assessment of damages. Obviously, some of those problems appear outside the context of damage assessment as well. By identifying the problems we already implicitly suggested some solutions, which will be discussed in more detail below.

1. The court as "gate keeper"

In the U.S., in Federal Rule 702 an important task is awarded to the court to verify the reliability of information provided by (party) experts. It reads:

"If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the

evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify there to in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case".

This Rule 702 followed *inter alia* a 1993 Supreme Court decision in the case *Daubert v. Merrel Dow Pharmaceuticals*.⁶³ This decision requires the trial judge to verify whether the line of reasoning of the expert, as well as the applied methodology is scientifically sound. The court equally has to verify whether the expert's reasoning and method could also be adequately applied to the facts at stake.⁶⁴ On the basis of this *Daubert* ruling it is hence held that the court has a task as "gate keeper". This task consists of verifying, on the basis of the *Federal Rules of Evidence* and the case law of the Supreme Court, whether the line of reasoning and method followed by the expert were appropriate and fit for the facts of the particular case. In the American procedural context the judge is mainly considered as "gate keeper" since he is the "gate" through which the evidence reaches the jury. However, the criteria for admissibility of expert testimony, developed in the U.S. in this context, are also relevant if the court has to verify the admissibility of expert testimony in a civil law context. The core of the American case law and the legal doctrine, which has been developed on that basis, is that the judiciary has the important task to verify whether the information provided by the expert has been obtained according to appropriate scientific standards and methods and whether it is useful to answer relevant questions. This task is considered especially important if party appointed witnesses are used. The result of this verification by the court could be that expert testimony which does not meet these criteria is excluded. This would in turn provide the parties

61 Carol Krafska, Meghan Dunn, Molly Treadway Johnson *et al.*, "Judge and Attorney Experiences, Practices, and Concerns Regarding Expert Testimony in Federal Civil Trials", 8 *Psychology, Public Policy, and Law* (2002), pp. 309 *et seq.*, at p. 328.

62 Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at p. 11.

63 113 S Ct 2786 (1993).

64 See on this *Daubert* case law and the subsequent Supreme Court case law also "Reliable Evaluation of Expert Testimony" (note), 116 *Harvard Law Review* (2002–2003), pp. 2142 *et seq.*; Werden, "Admissibility of Expert Economic Testimony", *supra* note 3.

(and their experts) an incentive to strive for more objectivity when providing expert testimony to the courts. However, Tomlin and Cooper show that in practice it is often difficult to reach this rather idealistic goal. Research shows that 48 % of the judges in state courts were of the opinion that they were not adequately prepared to assess the quality of often very complex and diverse expert testimony which was presented to them.⁶⁵

Daubert has led to the development of a so-called *Daubert* motion *in limine*, which is raised before or during trial. With such a motion, the presentation of an expert which does not meet the required standard can be excluded. Such a motion could help solving the problem of frivolous suits, which is regarded as a potential problem of class actions. In a frivolous suit, a low merit claim is brought in order to induce the defendant to settle. After all, settling may be more attractive to the defendant than going to a costly trial (the costs may include reputational losses), in which there may be a (small) risk of having to pay (large) damages. A *Daubert* motion which is brought after discovery but before trial enables excluding expert testimonies which do not meet the standard of quality. That way, bringing a frivolous suit becomes less attractive and the defendant is not coerced into a settlement.

Even though the use of party appointed experts can lead to the problems we have sketched in Section IV.3 above, there are several possibilities of correction. Judges will always, also in a civil law context, verify the quality of the testimony provided by the expert. The *In Re Silica case*⁶⁶ shows that judges can be well capable to examine the quality of expert testimony in a critical way and can eventually conclude to exclude unreliable evidence. In this case the district

court in Texas declared expert testimony inadmissible because the expert had not followed applicable scientific standards.⁶⁷ The case dealt with a mass tort claim where experts would have established that 9,000 plaintiffs suffered of silicosis (an incurable occupational lung disease caused by inhalation of dust containing free crystalline silica). The judge, however, established that not the physicians, but the lawyers had determined the criteria on the basis of which the diagnosis of silicosis was established. Moreover, it appeared that most of the patients had never seen the medical expert. The experts merely verified the files. They verified 75 files per day and on average took four minutes to analyze one file after which they concluded that the patient suffered from silicosis. The judge held that within the medical profession, specific scientific criteria have to be followed to reach a diagnosis of silicosis.⁶⁸ These scientific criteria had not been followed by the experts in this particular case. The judge held that the medical experts never considered the victims as patients, but merely as clients of the lawyer. The district court equally held that financial motives were the reason for the problematic methodology followed by the experts. In this particular case where experts clearly violate a professional norm, it is not difficult for a judge to verify the testimony provided by a party appointed witness and possibly to reject this.

Posner points at a second control mechanism. Even party experts should have an interest in following minimal scientific and methodological standards. The simple reason is that if they don't, their expert testimony may be declared inadmissible and therefore becomes useless for the lawyers who hired them.⁶⁹

Verkerk⁷⁰ discusses several procedural control mechanisms, such as a check on whether the expert really is an expert in his field (through the use of e.g. "disclosure statements") and whether he does not have a personal interest in the outcome of the case. Also, the expert should motivate his findings and the court should motivate why the findings of the expert are accepted or not. Furthermore, a court appointed expert should hear all parties involved and the court should monitor this. Parties should have the possibility to comment on the expert evidence.

Finally, one can also point at the fact that an expert can be a repeat player. As such he can therefore have a reputational motive to provide an objective expert testimony in order not to lose face towards the court. However, the just discussed example of *In Re*

65 Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at p. 5.

66 *In Re Silica Products Liability Litigation*, no. 2:05-CV-00121, S.D. Tex. 30 June, 2005.

67 See for a discussion of this interesting case Sarvadi and Blackwood, "Expert Testimony in the Silica-Cases", *supra* note 54.

68 These were based *inter alia* on an x-ray of the chest, a prior history of exposure to silica and the exclusion of other possible sources of the disease.

69 Richard Posner, "The Law and Economics of the Economic Expert Witness", 13 *Journal of Economic Perspectives* (1999), pp. 91 *et seq.*, at pp. 94, 95.

70 Remme Verkerk, "Procesrechtelijke waarborgen voor een betrouwbaar deskundigenonderzoek", 24 *Nederlands Tijdschrift voor Burgerlijk Recht* (2007), pp. 491 *et seq.*; see also Verkerk, *Fact Finding in Civil Litigation*, *supra* note 1, at p. 166.

Silica shows that this fear for reputational sanctions apparently not always provides sufficient incentives for a high quality expert testimony. This could still be different if the expert is also academically active and publishes. It will be difficult for e.g. a medical advisor or an economist to divert as expert witness from what he has held before e.g. as professor when writing academic publications.⁷¹ Also Thornton and Ward argue that the market will provide incentives to experts to strive at least for a minimum quality in their expert testimony. If for example economists would provide expert testimony on lost earnings and it would appear that their estimations would vary considerably depending upon the party who pays them, this would quickly jeopardize the reliability of that expert to the judiciary.⁷² Ideally, market forces should therefore lead even party appointed experts not merely to say what their clients (and their lawyers) want to hear, since this would endanger the credibility of the expert towards the judiciary. To some extent courts in some cases use lists of experts with whom they have previously worked. Experts with whom judges have had a negative experience (in the sense of providing a subjective testimony of low quality) could thus be removed from the lists and would no longer be accepted as expert. To some extent this could provide incentives to experts for providing higher quality testimony.⁷³

2. Certification and (self) regulation of experts?

We already mentioned in Section IV.2 above that using an expert always carries the danger of creating a monopoly. The expert obtains an informational monopoly towards the court in the sense that he will be the only one providing information concerning certain circumstances to the court. That would be an argument not just to have one expert, but to hear more voices in order to have a competition of opinions which may increase quality. Moreover, in some

legal systems one can notice that experts involved in the assessment of damages will organize themselves. For example medical experts or experts evaluating the value of crashed cars will gather together in one professional organization. If that happens, the danger exists that market power is created and competition is limited or excluded. This could lead to the well known risks of an increase of prices and a reduction of the quality of services. Indeed, if experts would not experience competition, they would receive fewer incentives to provide good quality for a good price. Whether this is really a problem in a particular legal system with respect to specific experts is of course an empirical matter.

The economic theory of regulation, as well as the sociology of professions has shown that professional groups will always strive to obtain a certain protection for their professions. Whenever possible they will strive for a protection of their title and for a monopoly on certain services, usually supported by (self) regulation. The economic argument to support self-regulation has always been the information asymmetry: experts themselves would have excellent information on the quality of the services they provide, but the parties who use those services (either lawyers or the judge) would not be able to sufficiently control the quality of the services.⁷⁴ This type of arguments is often heard from the experts themselves, for example to defend the mandatory membership of an association in order to be able to call oneself an “expert”. Economists warn against the danger that if membership of such an organization becomes a precondition for exercising the profession, the remedy (limitation of competition) is often worse than the disease (information asymmetry). The well known consequences of concentration on the market may emerge: agreements on prices and price increases may occur. Minimum standards on quality could be agreed upon, but the experience with the (self) regulation in other professions shows that they often only have limited incentives to strive for high quality.⁷⁵

71 Posner, “Economic Expert Witness”, *supra* note 69, at p. 94.

72 Thornton and Ward, “Economist in Tort Litigation”, *supra* note 6, at p. 108.

73 The use of lists does, however, not go undisputed either. To the extent that courts would only appoint experts on the list and not others of equal quality these lists could lead to an effective monopoly. We will discuss this problem in the next subsection. However, removing a bad expert from a list could provide appropriate incentives to the expert for a higher quality testimony, even if being party appointed.

74 See generally on self-regulation Anthony Ogus, “Self-regulation”, in Boudewijn Bouckaert and Gerrit De Geest (eds), *Encyclopaedia of Law and Economics, Vol. V, The Economics of Crime and Litigation* (Cheltenham: Edward Elgar, 2000), pp. 587 *et seq.*; Anthony Ogus, “Rethinking Self-regulation”, 15 *Oxford Journal of Legal Studies* (1995), pp. 97 *et seq.*

75 See the contributions in Michael Faure, Jörg Finsinger, Jacques Siegers and Roger Van den Bergh (eds), *Regulation of Professions: A Law and Economics Approach to the Regulation of Attorneys and Physicians in the U.S., Belgium, the Netherlands, Germany and the U.K.* (Antwerp: Maklu, 1993).

It is interesting to notice that also experts active in the domain of damage assessment have the tendency to strive for recognition, mandatory membership of an organization and certification. For example a Dutch expert complains about the fact that being an expert in the Netherlands is to a large extent unprotected and that hence in principle anyone can call himself a “traffic accident expert”.⁷⁶ The tendency exists to require membership of a certain professional organization of experts as a quality label. This may create the danger of monopoly to the extent that only those experts would be considered as having the necessary quality. In the Netherlands, the institute of “register experts” constitutes an example;⁷⁷ a similar tendency can be found in Belgium where an association of Belgian experts was created.⁷⁸ From an economic perspective one always has to address those professional associations with caution. Here, the well known advice of Adam Smith still applies that if merchants come together the danger always exists that they will use the occasion to make agreements that increase their personal benefit and reduce social welfare.⁷⁹ A research among forensic economists has shown that only 12 % was in favour of some form of certification.⁸⁰

The same can be argued concerning the practice in many countries to work with so called lists of experts. This would especially be the case when courts appoint experts (see *infra* V.3) but those lists can also play a role when courts verify the credibility of party appointed experts. In some cases, it may be

unclear on the basis of which criteria one is included in the list of experts. To the extent that this is not only related to professional qualifications, but e.g. being known to the judiciary this may be problematic. Moreover, even if the list would only contain experts of high quality, working only with experts from such a list is already problematic in the sense that it excludes competition. Being included in the list then in fact creates a property right which may again increase prices. The list then effectively creates a barrier to entry for new (equally or perhaps even more qualified) experts who enter the market and would not be on the list yet. To the extent that courts use those lists, they should hence be sufficiently dynamic, enabling free entry and not being exclusive in the sense that others, who likewise provide reliable and objective expert testimony, should be allowed by the courts as well.

In sum, one has to realize that the danger that a (party appointed) expert will not always serve the public interest in all objectivity should not necessarily be an argument to remedy this danger with the potentially more risky medicine of a restriction of competition via certification. Other, more proportional, remedies such as a court review of the testimony provided by party appointed experts and some of the other remedies discussed below seem more appropriate.

3. Expert appointed by the court

Elliott discusses the problem that the court system in fact considers all experts equal. Hence, it remains difficult for a court to distinguish high quality from low quality information. This may provide parties with incentives to hire experts of whom it is known that they represent extreme points of view.⁸¹ As a possible solution, Elliott suggests that less use should be made of party appointed experts and more of court appointed experts, panels of experts or experts who are employed by government.⁸² However, Huber in a reaction mentions that appointing panels of experts as a routine matter would be excessively costly.⁸³ Also Schwartz is critical of Elliott and holds that the latter presents a too positive view of what experts are able to do. According to Schwartz there is no objective way of distinguishing good from bad science. Moreover, on many issues there still is academic debate, so that in many cases there is not one generally accepted “scientific truth”.⁸⁴

76 Nico Bosscha, “Verkeersongevallenanalyse: een vak apart?”, in Willem Asser et al., *De rol van de deskundige in het schaderegelingsproces: inleiding, gehouden op het symposium van de Vereniging van Letselschade Advocaten 2001* (Lelystad: Koninklijke Vermande, 2001), pp. 13 et sqq., at p. 16.

77 Nederlands Instituut van Register Experts (NIVRE).

78 Associatie van Belgische Expert(en) (ABEX).

79 Adam Smith, *An Inquiry into the Nature and the Causes of the Wealth of Nations*, 5th ed. (New York: The Modern Library, reprint 1937), at pp. 127–128.

80 Thornton and Ward, “Economist in Tort Litigation”, *supra* note 6, at p. 110.

81 Donald Elliott, “Toward Incentive Based Procedures: Three Approaches for Regulating Scientific Evidence”, 69 *Boston University Law Review* (1989), pp. 487 et sqq., at p. 492.

82 Elliott, “Toward Incentive Based Procedures”, *supra* note 81, at pp. 501 et sqq.

83 Peter Huber, “A Comment on Toward Incentive Based Procedures: Three Approaches for Regulating Scientific Evidence”, 69 *Boston University Law Review* (1989), pp. 513 et sqq., at p. 514.

84 Robert Schwartz, “There is No Archbishop of Science – A Comment on Elliott’s Toward Incentive Based Procedures: Three Approaches for Regulating Scientific Evidence”, 69 *Boston University Law Review* (1989), pp. 517 et sqq., at pp. 519, 520.

An argument in favour of court appointed experts instead of party experts is that party appointed experts may take totally opposing points of view. This may lead to a costly search for information which, however, does not provide any clarity. The danger may especially exist that the court would consider the testimony of party appointed experts so contradictory that they are simply rejected as being unreliable and therefore not useful.⁸⁵

Tomlin and Cooper have developed a game theoretical model on the basis of which they argue under which circumstances the court should appoint an expert. In their model the court appointed expert would advise the court in particular regarding the credibility of the testimony provided by party appointed experts. According to their model it would not be necessary that the court appoints an expert in every case. The judges should merely acquire a reputation to appoint experts in the relevant situations (i.e. if there can be doubt on the testimony provided by party appointed experts). This would in turn provide incentives to party appointed experts not to exaggerate their own testimony. If for example the assessment of the damage by the party appointed expert would deviate too much from the assessment of the court appointed expert, there is a danger that the exaggerated position would be rejected and that the point of view of the adversary party would be accepted. These threats could, according to Tomlin and Cooper, lead to a more accurate damage assessment.⁸⁶ Of course the benefits of appointing an expert by the court have to be weighed against the costs. To the extent that it becomes more difficult for the court to assess the margins within which the loss actually lies, he will be likely to appoint an expert, provided that this expert is able to reduce those margins.⁸⁷

In addition to the literature we have discussed in Section IV.3 above, which considers the use of party appointed experts as a problem, there is also literature which holds that it is no problem in itself that party appointed experts provide subjective information. Parties, so it is held, do have opposing interests and this competition in the provision of information can lead to a situation whereby systematic errors in the information produced are avoided. However, this argument presented by Parker and Kobayashi presumes that parties have symmetric access to information and that the information produced can be verified.⁸⁸ Froeb and Kobayashi present a theoretical model on the basis of which a court appointed expert does not necessarily provide better testimony than party appointed ex-

perts.⁸⁹ They again hold that parties decide which and how much information they will deliver and of course do this on the basis of a cost-benefit analysis, taking into account certain prejudices of the decision maker. Again, they argue that, to the extent that both parties engage in this game, there is a competition which should lead to an accurate provision of information.

However, the assumption of Froeb and Kobayashi that the subjectivity of the information provided is symmetrically divided (i.e. that every expert deviates in the same amount from the truth), is problematic.⁹⁰ In the domain of assessing damages there is always a certain asymmetry since damages are by definition non-negative. The expert of the plaintiff can hence (in theory) exaggerate the damage in an unlimited manner. The expert of the defendant, however, cannot go further than denying the existence or compensability of the losses for which damages are claimed.⁹¹ Hence, other scholars like Tomlin and Cooper argue that, given this asymmetry, an equilibrium of information between party appointed experts will not always emerge. A court appointed expert can therefore have an important added value as far as a more adequate damage assessment is concerned.⁹² An additional problem is that all authors assume that the court will choose the middle way between the information provided by the respective party appointed experts.⁹³ In addition to the problem

85 Posner, "Economic Expert Witness", *supra* note 69, at p. 93; see also Lee, "Court-Appointed Experts", *supra* note 56, at pp. 484, 488.

86 Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at pp. 14 *et seq.*; Tomlin and Cooper, "Expert Testimony", *supra* note 55, at p. 11.

87 Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at p. 28.

88 Jeffrey Parker and Bruce Kobayashi, "Evidence", in Boudewijn Bouckaert and Gerrit De Geest, G. (eds), *Encyclopaedia of Law and Economics, Vol. V, The Economics of Crime and Litigation* (Cheltenham: Edward Elgar, 2000), pp. 290 *et seq.*, at pp. 294, 295.

89 Luke Froeb and Bruce Kobayashi, "Naïve, Biased, Yet Bayesian: Can Juries Interpret Selectivity Produced Evidence?", 12 *The Journal of Law, Economics & Organization* (1996), pp. 257 *et seq.*, at pp. 275–276.

90 This corresponds with the simple example provided at the end of Section IV.3 *supra*.

91 This is strongly related to the behavioural bias of the "anchoring effect" discussed above.

92 Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at pp. 12, 13.

93 Luke Froeb and Bruce Kobayashi, "Evidence production in adversarial vs. inquisitorial regimes", 70 *Economics Letters* (2001), pp. 267 *et seq.*; Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at p. 14; Tomlin and Cooper, "Expert Testimony", *supra* note 55, at p.8.

that, as we just mentioned, the exaggeration is often asymmetrical, this subsequent assumption simply does not correspond with reality. This hence constitutes another reason why competition of information will not necessarily lead to an efficient result.

Also Posner provides support for a court appointed expert, but proposes a model which is sometimes used in cases of arbitration: the two party appointed experts together decide to appoint a third independent expert.⁹⁴ The latter would then have the task to increase the reliability of the expert testimony provided, but also to “translate” the expert evidence for the court. In this respect it is sometimes rightly mentioned that the mere fact that parties have appointed their own expert is as such not necessarily a reason for the court to appoint an expert. The court expert should hence not be seen as a super expert who should do better than the party appointed experts, but rather as someone who can intervene to increase the reliability of the expert evidence if the information provided by the party appointed experts diverges too strongly. It should not be overlooked that court appointed experts are not necessarily of higher quality than party appointed experts. An important issue in this respect is that the ability to pay of private parties is often substantially better than that of courts (who often work with standardized amounts). If that is a realistic problem, one can fear that parties may better be able to hire (the better) experts than courts for the simple reason that they can pay them more.⁹⁵

Verkerk shows that in continental systems, courts appoint experts much more often than in the United States. Party-appointed expert witnesses, on the other hand, are much more dominant in the United States than in Europe. This is caused by the more adversarial character of litigation in the United States. In Europe, the expert is regarded as “a neutral and impartial auxiliary of the court” who has a “duty to establish the facts truthfully”.⁹⁶ The courts in many

European countries have a broad discretion in this respect and they do not have to follow the parties’ wishes. Given the fact that the court very often takes a decision which is in line with the findings of the expert,⁹⁷ all problems discussed above regarding the quality and impartiality of the expert are relevant here as well. Verkerk explains that the “European” system of court appointed experts reduces the incentives to be partial or biased and that the costs of involving expertise are relatively low. However, the danger exists that the expert becomes too influential and that parties are not able to convince the court not to base his decision on the conclusions of the expert.⁹⁸ The use of party-appointed experts could avoid this problem, but it would of course dramatically increase costs. Verkerk therefore advocates a “mixed model” where more use of party-appointed experts is made than currently happens in many European countries, but where court-appointed experts are used more often than currently happens in the United States, to prevent biased testimony by party-appointed experts. This mixed system can be fine-tuned to the needs of the case, e.g. one court-appointed expert in the majority of the cases, but in cases with higher stakes or more complicated problems, additional party-appointed experts could be used.⁹⁹

4. Standardization

Above we have already indicated that certification has, from an economic perspective, the disadvantage that it can create monopolies with all the corresponding disadvantages. Certification would mean that only specific certified experts (for example those who are a member of a specific association or are mentioned on a list) could be appointed as expert. Another issue is the standardization of the way in which the expert exercises his research. The latter would simply mean that, of course depending upon the kind of the expertise and the profession involved, clear standards are established according to which the examination by the expert has to be exercised. The advantage of those standards is that also the court can *ex post* verify whether the examination by the expert has been carried out according to the established professional and scientific standards. This of course supposes that these rules are made explicit in a public standardization. This proposal received support in the literature. Mandel is in favour of laying down ethical standards for experts.¹⁰⁰ Also Pos-

94 See Posner, “Economic Expert Witness”, *supra* note 69, at p. 96.

95 Sales and Shuman, *Experts in Court*, *supra* note 58, at p. 132.

96 Verkerk, *Comparative aspects*, *supra* note 1, at pp. 168 *et seq.*

98 *Ibid.*, at p. 175.

98 *Ibid.*, at p. 180.

99 *Ibid.*, at p. 193.

100 Mandel, “Going for the Gold”, *supra* note 5, at p. 119.

ner indicates that it should be possible for the court to verify whether the expert testimony corresponds with the methodological standards applicable to the particular profession.¹⁰¹ This would, according to Posner, allow to exclude “junk science”.

Examples of such standards also exist in the domain of damage assessment.¹⁰² They are already applied in civil cases when courts have to decide on the admissibility of expert evidence. In the Netherlands, a case of the Central Disciplinary Board for Health Care of 19 July 2007 had to examine the behaviour of a medical advisor in a health care insurance matter.¹⁰³ The disciplinary board held *inter alia* that in a medical opinion, the grounds on which a certain conclusion is based should be indicated in a clear and consistent way.

5. Training of judges

From the above it becomes clear that interpreting expert evidence is often not that easy for the judiciary. Moreover, we equally indicated that the expert is often asked, exactly because he possesses through his specialization an information advantage which the judge lacks. Still it was argued that the judge should be able to verify whether the examination by the expert has been performed according to professional standards. That is precisely why we have indicated above that standardization of the examination by experts is important. It will allow the judge at least to verify whether the examination took place according to professional standards and norms.

Finally, it will be the judge who will have to make a decision e.g. on an adequate assessment of damages. This may still require substantial expertise from the judge as well. The judge will at least have to recognize indicators for the reliability of the expert evidence, in order to constitute a judgement on the usefulness of the evidence provided by the expert.¹⁰⁴ Even though this may not be an easy task, the *In Re Silica* case, which we have discussed above, shows that judges can be able to assess the quality of expert evidence. In that particular case the district court in Texas used the applicable professional norms for medical experts to establish that the examination of the patients did not correspond with the minimum scientific requirements. Moreover, given the difficulties in assessing expert evidence one can recall the argument presented by Meadow and Sunstein that courts should rely less on experts and rather use

the more objective and reliable statistical evidence, for example to reveal common practices within the (medical) profession.

However, it is equally clear that handling tort cases and more particularly damage assessment has become such a complex task that even if supported with expert evidence, courts should almost specialize in tort cases in order to handle these cases adequately. Through the specialization, judges could become repeat players, thus lowering their information costs by being able to rely on their experience. If they would actually specialize it also becomes worthwhile to invest in training judges in order to enable them to better assess expert reports. Indeed, we have shown above that it is theoretically well possible for the judge in a tort case to assess the reliability of reports provided by party appointed experts and to interpret a report provided by a court appointed expert. However, it may require special skills and information, e.g. concerning professional standards in order to exercise such a judgement. These are hence rather strong arguments in favour of specialization of the judiciary on tort cases and also for a training of the judges enabling them to critically review expert evidence. The latter is of course only worthwhile if specialization indeed takes place. The marginal costs of additional training may simply be too high if judges would e.g. usually deal with divorce cases and only occasionally handle tort cases. The investments in training are, given the costs involved, thus only worthwhile if some degree of specialization can be achieved as well.

6. Sanctions?

All the techniques and methods sketched above are in fact instruments to provide incentives to parties and their lawyers not to seduce party appointed experts to exaggerate their testimony in a subjective

101 Posner, “Economic Expert Witness”, *supra* note 69, at pp. 94, 95.

102 See, for example, Robert Hall and Victoria Lazear, “Reference Guide on Estimation of Economic Losses in Damage Awards”, in *Reference Manual on Scientific Evidence*, 2nd ed. (Federal Judicial Center, 2000), pp. 277 *et seq.*

103 See Jacqueline Meyst-Michels, “De normen die gelden voor een geneeskundig adviseur in particuliere verzekeringszaken”, 10 *PIV Bulletin* (October 2007), pp. 1 *et seq.*

104 Note *Harvard Law Review*, *Reliable Evaluation of Expert Testimony*, *supra* note 64, at pp. 2160–2162.

way. We have already indicated that such a subjective exaggeration will in some cases lead to a market sanction. The result can indeed be that the court may simply ignore the clearly subjective expert evidence or may decide to appoint a court expert. In both cases, the evidence provided by the party appointed expert becomes useless and it can hence be expected that this expert will be less used in the future. Moreover, the reputational sanction for example for experts who are also academically active and publish can provide incentives to deliver expert evidence of higher quality and objectivity as well.

In addition, Tomlin and Cooper discuss other possibilities which could be used to provide experts incentives to provide more objective expert opinions, even if they are party appointed. In this respect, the possibility of the liability of an expert is discussed as instrument of providing correct incentives. Another possibility is sanctioning via disciplinary measures.¹⁰⁵ That this is not unimaginable in the American context is made clear in the *In Re Silica* case discussed above. In that particular case the Texas district court imposed fines on the lawyers who had clearly manipulated the experts to declare that in 9,000 cases a diagnosis of silicosis could be established. In other cases, courts have not only imposed fines on lawyers and their firms, but equally on the clients.¹⁰⁶ As Tomlin and Cooper rightly stress, the best sanction in the end still is the exclusion of subjective and therefore useless expert evidence.¹⁰⁷

7. Peer review

Alemanno¹⁰⁸ makes the interesting suggestion to use peer review as a possible solution to the problem of biased and/or low-quality expert testimonies. He writes in the context of the role of experts in risk regulation, but the idea may be valid for the purpose of our paper as well. If peers of the (court-appointed

or party-appointed) experts would review the reports provided, this could improve the quality and reliability of these reports. The peers could provide the court with a better view of how reliable the reports are. This may ameliorate the problem that currently, the court has to assess the quality of the report, whereas the court has much less information than the experts who provided the report. Peers are likely better able to review the reports, and they are also better able to evaluate the sources which the experts have used for their reports.

VI. Concluding remarks

As we already mentioned in the introduction, the economic analysis which we have presented in this contribution to the use of experts in the assessment of damages, apparently does not reach radically different conclusions than a legal analysis, as is sometimes the case in other domains. Certain intuitions which also traditional lawyers have, being that an expert who is paid by one of the parties will be tempted to benefit that particular party with his testimony is, not surprisingly, confirmed by economic analysis. However, in some respects economic analysis can provide a different, sometimes insightful, point of view, for example the fact that certain market based mechanisms can (partially) help to provide incentives to party appointed experts to provide an accurate and objective damage assessment. Also the insight that certification of experts via a professional association may lead to the danger of restriction of competition can be an eye-opener for many lawyers.

We started our contribution by stressing the importance of an accurate average damage assessment. In this respect economists pay (probably more than lawyers) attention to the question what the particular goal of the law of damages is; they stress that in that respect there is also an important role for economic expertise. Much of the economic research in this domain, also concerning the contribution of experts in damage assessment, comes down to the finding that lawyers could benefit from engaging economists as experts in a domain such as damage assessment in torts. In order to answer complicated questions concerning for example future lost earnings, but also in the assessment of personal injury losses, economic expertise can play an important role.

Economic research moreover stresses that from a theoretical perspective the use of party appointed ex-

105 Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at p. 31.

106 See Sarvadi and Blackwood, "Expert Testimony in the Silica Cases", *supra* note 54, at p. 34.

107 Tomlin and Cooper, "When Should Judges Appoint Experts", *supra* note 53, at p. 32.

108 Alberto Alemanno, "Science and Risk Regulation: The Role of Experts in Decision-Making and Judicial Review", in Ellen Vos (ed.), *European Risk Governance – Its Science, its Inclusiveness and its Effectiveness*, CONNEX Report Series Nr 06 (2008), pp. 37 *et seq.*, at pp. 65 *et seq.*

perks is not necessarily problematic as long as a certain symmetry exists between the experts appointed by both parties. The latter will unfortunately not always be the case. The resulting asymmetry may thus provide a wrong picture to the court. However, the mere fact that an expert is paid (and will thus be instructed) by one of the parties does not necessarily imply that this expert will also serve the interests of that client and his lawyer in an exaggerated way. If he does so, several market based correction mechanisms may work to remedy this. The fact that many experts are not only repeat players as experts (and thus have an interest in representing consistent opinions in varying capacities), but equally have other capacities (for example as academic) provides incentives to the expert not merely to serve the interests of the client. In addition, the court may sanction expert evidence that clearly violates professional standards either by excluding the evidence or by using a court appointed expert. In both cases the party expert may be confronted with the market sanction of being asked less frequently. This danger may give him incentives to provide better quality evidence. Important in this respect is, however, that the court should possess standards with which to test whether the expert has executed his examination with the required professional care.

A certain standardization of scientific and methodological norms, which are available within the profession, can promote the quality of the work of the expert and moreover, facilitate the controlling task of the court as gate keeper. Of course such a control of, *inter alia* the methodology used by the expert, will not always be an easy task for the court. However, the *In Re Silica* case shows that in clear cases the court may be able to exclude a subjective expert opinion and even sanction it with fines. Again, it has to be stressed that from an economic perspective, standardization of the behaviour within the profession can be considered as a useful remedy for an informational asymmetry. However, there is always the danger that such standardization could lead to a restriction of competition. That would certainly be the case if experts would be “certified” as a result of which only members of a particular professional association would be appointed as expert. Other less restrictive remedies could also correct the informational asymmetry and hence promote the quality of the research by the expert.

A large part of the research on which we have reported in this contribution is of American origin.

To some extent one should always be cautious to use these findings in Europe since the role of the expert in the U.S. courts is certainly not always comparable to the role of experts within a European legal context. The American literature and case law for example stress the role of the court as gate keeper especially in controlling the quality of the evidence which is presented to the jury. But even within a European legal system where no juries are used for the assessment of damages, the findings of the American literature are still relevant. The core of this literature is indeed that the role of the court is stressed as far as the control of material provided by the expert is concerned. That lesson from the U.S., which is also supported by empirical material coming from the behavioural Law and Economics, is of great importance for Europe as well. There is indeed ample reason to critically review evidence which is presented by experts, especially when it concerns probability assessments and calibrations. This scepticism as such is no argument against the use of experts, but rather an argument for the court to remain cautious and to verify the material provided by the expert on the basis of applicable scientific standards and methods.

Finally, we should mention that our contribution has strongly stressed the role of the court in the verification of expert evidence related to the assessment of damages. However, in many legal systems damage assessment will not be done by the court since many standard cases (e.g. traffic accidents) are settled rather than tried. This, however, does not make the findings in this contribution and the discussed literature less relevant. It is well known that the negotiation process will take place “in the shadow of the law” and will thus take into account what a court would normally decide on that issue. The standards which are developed in case law with respect to the reliability of expert evidence hence will also influence the bargaining phase. Moreover, many of the problems we discussed here, like the fact that party appointed experts are used, also exist in negotiated settlements concerning damages. There as well, lawyers or insurers will involve party appointed experts and hence similar problems can arise and similar market based mechanisms may avoid this evidence from being too subjective.

The general lesson is that, whether damages assessment takes place through bargaining or via the court system, the Law and Economics approach can provide useful insights concerning the role of experts in the assessment of damages in tort.