

ISSN 1022-4057

Português

English

Español



ECONOMIC ANALYSIS OF LAW REVIEW

abde
Associação Brasileira
de Direito e Economia

 Universidade
Católica de Brasília


EDITORA
universa

www.ealr.com.br

Economic Analysis of Law Review

Strict Liability and the Fair Level of Damages

Leandro M. Zanitelli¹

Centro Universitário Ritter dos Reis – UniRitter

Faculdade de Direito

RESUMO

O objetivo deste artigo é determinar o montante de indenização requerido por teorias da responsabilidade civil objetiva baseadas na ideia de equidade ou *fairness*. Argumenta-se que, na maior parte dos casos, o referido montante é o correspondente ao seguro ótimo.

Palavras-chave: Responsabilidade Civil Objetiva; Equidade; Justiça Distributiva; Seguro Ótimo, Indenização

JEL: K13

ABSTRACT

The aim of this paper is to determine the level of compensatory damages required by fairness approaches to strict liability. It argues that, most of the time, such level is the level corresponding to optimal insurance.

Key words: Strict Liability; Enterprise Liability; Fairness; Distributive Justice; Optimal Insurance; Damages

R: 23/10/09 **A:** 15/3/10 **P:** 11/6/10

¹ Paper written when I was a visiting scholar at the Institut für Recht und Ökonomik at Universität Hamburg, Germany. I would like to thank the Hamburg University, the Institute of Law and Economics, and particularly the Director of the latter, Professor Thomas Eger. Financial support from CAPES and FAPERGS is acknowledged. E-mail: leandro_zanitelli@uniritter.edu.br.

1. Introduction

Strict liability² has been justified in two basic ways, each of them corresponding to a different branch of tort scholarship. On one hand, strict liability, or a particular case of it, enterprise liability,³ has been presented as a way of promoting economic efficiency by advancing goals like deterrence and loss-spreading. This is the justification provided by law-and-economics scholarship.⁴ On the other hand, strict liability has also been defended on grounds of justice, as a way of fairly allocate the burdens of an activity.⁵ This is the moral justification⁶ for strict liability.⁷

While the computing of damages is a common matter of concern for economically-oriented scholars seeing tort liability as an insurance scheme, it has scarcely deserved the attention of those for whom strict liability is a means of achieving a fair distribution of losses rather than some efficiency goal. George Fletcher and Gregory Keating, the two most prominent examples of scholars belonging to the latter group, have been much more intensively searching for the moral foundations and scope of liability rules than for the level of damages that the plaintiff should be entitled to recover under a strict liability regime. Both seem to assume that, whenever compensation of harm is due on grounds

² I shall refer to strict liability as a tort regime tying a duty of repair to individuals whose activity is not necessarily taken to be unlawful. Strict liability, in other words, does not presuppose that the risk created by the defendant's activity should be prevented.

³ Enterprise liability is a tort regime that distributes the burdens of an activity among those who benefit from it. Strict liability turns into enterprise liability to the extent that the duty of repair is imposed either to the beneficiaries of a risk-creating activity or to someone, like a firm, who distributes the costs of repair among the former.

⁴ See Richard Posner, *Economic Analysis of Law* 178-181 (7th ed. 2007) (strict liability induces injurers to efficiently adjust the level of their activity; it may also be cheaper to administrate, since under a strict liability rule courts need be concerned only with causation and the size of losses); Robert Cooter & Thomas Ulen, *Law & Economics* 332; 343 (4th ed. 2004) (same); Steven Shavell, *Economic Analysis of Accident Law* 21-26; 264 (1987) (same). While the relevance of strict liability for deterrence is in a general way acknowledged, the loss-spreading rationale has been severely criticized. As compared to first-party insurance, tort law has been considered a poor way of spreading losses in virtue of its high administrative costs, inability to perform risk classification, and suitability to moral hazard (which may undermine the deterrence gains of turning agents strictly liable). As Posner, *id.* at 181, points out (in a somewhat overstated way), "all sides of the non-fault debate agree that the tort system is a very costly method of providing insurance; the debate is over whether it provides another good, the deterrence of non-cost justified accidents." See also Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 Yale L. J. 353 (1988); George L. Priest, *The Current Insurance Crisis and Modern Tort Law*, 96 Yale L. J. 1521, 1556-1557 (1987). The loss-spreading properties of strict liability have been defended from an economic standpoint by Steven P. Croley & Jon D. Hanson, *Rescuing the Revolution: The Revived Case for Enterprise Liability*, 91 Mich. L. Rev. 683 (1993); and Jon D. Hanson & Kyle D. Logue, *The First-Party Insurance Externality: An Economic Justification for Enterprise Liability*, 76 Cornell L. Rev. 129 (1991).

⁵ See Gregory C. Keating, *Rawlsian Fairness and Regime Choice in the Law of Accidents*, 72 Fordham L. Rev. 1857 (2004) [hereinafter Keating, *Regime Choice*]; *The Idea of Fairness in the Law of Enterprise Liability*, 95 Mich. L. Rev. 1266 (1997) [hereinafter Keating, *Enterprise Liability*]; Richard Epstein, *A Theory of Strict Liability*, 2 J. Legal Stud. 151 (1973); George P. Fletcher, *Fairness and Utility in Tort Theory*, 85 Harv. L. Rev. 537 (1972). Epstein's theory differs from those developed by Fletcher and Keating in that the former attempts to justify strict liability on the basis of causation rather than on an substantial (in contrast to procedural) account of fair distribution. I shall not deal with Epstein's theory here.

⁶ It's usual to refer to the moral approach to tort law as opposed to the economic approach. This does not mean that the latter lacks moral content, but that the moral tenet of law (the efficiency of legal rules) is assumed by it rather than viewed as a subject of analysis.

⁷ The moral approach to tort law is constituted in substantial part by the work of scholars tying tort law to corrective justice. As the latter is concerned with the rectification of wrongdoings, those scholars tend to be critical with respect to strict liability. See, e.g., Arthur Ripstein, *Equality, Responsibility, and the Law* 32-45 (1999); Ernest Weinrib, *The Idea of Private Law* 171-203 (1995); Stephen R. Perry, *The Moral Foundations of Tort Law*, 77 Iowa L. Rev. 449 (1992).

of fairness, it has to be full compensation.⁸ For economic analysis, by contrast, insofar as the goal of tort law is to provide insurance, the desirable level of damages is the desirable or optimal level of insurance, which may not correspond to full compensation.⁹

The aim of this Article is to assess the amount of damages required by fair strict liability. I shall argue that, most of the time, strict liability rules giving rise to a fair distribution of the benefits and burdens created by hazardous activities do not entitle victims to recover for damages in a level superior to that defined by optimal insurance. Thus, while the scope of liability determined by the economic and moral approaches may diverge, the two approaches largely coincide with respect to the level of compensation to be granted whenever liability exists.

Acknowledging that fair damages often correspond to optimal insurance is important for three reasons. First, it shows that the claims of efficiency and distributive justice overlap to a good extent. This is particularly noteworthy since efficiency and distributive justice are the two main candidates to justify strict liability – corrective justice, another prominent moral background, is not likely to play a significant role in this case. Second, a more precise description of fair damage awards can bear on the scope of liability. Fairness theorists use to assess the scope of strict liability by asking under which circumstances it is fair to redistribute losses on a no-fault basis. Whatever the correct answer to this question is, it lacks practical significance once one ascertains that the fair level of compensation is zero, as one may occasionally do when fair compensation is taken to be equal to optimal insurance. Third, if optimal insurance is required on grounds of fairness, the issue of determining which level of insurance is optimal acquires a new status. It becomes a crucial issue not only to economists, but also to those whose central concern is justice – in this case, distributive justice. It turns out thus to be a crucial issue no matter the value one ascribes to efficiency in the normative analysis of legal rules.

The paper is organized as follows. Section II offers a more detailed picture of the fairness theory of strict liability, relying on the works of its main advocates, Fletcher and Keating. Section III addresses optimal insurance; it presents this concept as susceptible of two basic interpretations, one of them leading to a preference-based standard of insurance, or insurance according to a consumer-sovereignty rule, and the other one to rational insurance as the insurance that would be rational to buy. The two subsequent sections deal with the central question of the paper, namely, which level of compensation is demanded by the fairness approach to strict liability. Section IV focuses on the cases where compensation costs are borne, direct or indirectly, by the potential victims of a risk-creating activity, while Section V focuses on the remaining cases. Section VI makes some remarks on the deterrence role of strict liability; and Section VII concludes.

⁸ When presenting his paradigm of reciprocity, Fletcher refers to victims' right to compensation in an unqualified way. See Fletcher, *supra* note 5, at 550: "By analogy to John Rawls' first principle of justice, the principle [of fairness] might read: we all have the right to the maximum amount of damages compatible with a like security for everyone else. This means that we are subject to harm, without compensation, from background risks, but that no one may suffer harm from additional risks without recourse for damages against the risk-creator. Compensation is surrogate for the individual's right to the same security as enjoyed by others." [footnote omitted]. See also Keating, *Regime Choice*, *supra* note 5, at 1880: "When harm is fully compensable – fully rectifiable by the payment of money damages – fairness can be achieved after injury is inflicted by redistributing accident costs from victims to injurers."

⁹ The level of damages required for deterrence purposes may not correspond to optimal insurance, giving rise to a potential conflict between the goals of deterrence and insurance or loss-spreading. On this, see Jennifer Arlen, *Tort Damages*, in *Encyclopedia of Law and Economics*, v. II: Civil Law and Economics 702-709 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000).

2. The Fairness Approach to Strict Liability

The idea according to which strict liability fairly distributes the costs of hazardous activities among those who benefit from them is not new,¹⁰ but the first careful attempt to articulate it with some precise account of distributive justice seems to be the one made by George Fletcher in an article published in the early 70's, just after the appearance of Rawls' book "A Theory of Justice." More recently, Gregory Keating has developed his version of the fairness approach, which departs to a good extent from that advocated by Fletcher. I present below the views of these two authors in turn.

2.1. Fairness as Reciprocity of Risks: George Fletcher

Throughout his article, Fletcher contrasts what he calls two distinct paradigms of tort law, each one of them corresponding to a distinct fundamental view: the paradigm of reciprocity, which relies on a non-instrumentalist, rights-oriented view of tort law, and the paradigm of reasonableness, which reflects an instrumentalist view attaching tort law to social utility. Fletcher observes that the question faced by courts regarding which of the paradigms should be followed is the question of a choice between surrendering "the individual to the demands of maximizing utility," or continuing to protect "individual interests in the face of community needs."¹¹

Fletcher's paradigm of reciprocity in torts rests on a principle of fairness presented by him as analogous to Rawls' liberty principle. The fairness principle states that "we all have the right to the maximum amount of security compatible with a like security for everyone else."¹² Citizens are entitled to a right to equal security or, what is the other side of the same coin, a right to a equal distribution of risks.

The fairness principle operates in the domain of tort law through the idea of reciprocity, which gives rise to a classification of risks into two basic categories, that of reciprocal risks, as those that some individuals bear and impose to others at the same time, and that of nonreciprocal risks, as those risks that are borne, but not imposed to others, by some individuals.¹³ Football players or

¹⁰ In Brazilian law, the defense of strict liability as a way whereby those who benefit from hazardous activities are made to absorb the costs created by these same activities is already found in the classical book of Alvino Lima, *Da Culpa ao Risco* [From Fault to Risk] 93-94 (1938): "quem guarda os benefícios que o acaso de sua atividade lhe proporciona, deve, inversamente, suportar os males decorrentes desta mesma atividade" ["whoever keeps the benefits yielded by the chances of an activity, should, inversely, bear the evils flowing from that activity"], which has been in turn largely influenced by European – particularly French and Italian – doctrine. The same justification has been offered by contemporary commentators; see, e.g., Sílvia de Salvo Venosa, *Direito Civil: responsabilidade civil* [Civil Law: Torts] 17 (3d ed. 2003); Guilherme Couto de Castro, *A Responsabilidade Civil Objetiva no Direito Brasileiro* [Strict Civil Liability in Brazilian Law] 33 (3d ed. 2000). It is, furthermore, a likely rationale for the Brazilian new Civil Code's (2003) inclination toward strict liability, as exemplified by the general provision of strict liability contained in its Article 927, Paragraph Only: "Haverá obrigação de reparar o dano, independentemente de culpa, nos casos especificados em lei, ou quando a atividade normalmente desenvolvida pelo autor do dano implicar, por sua natureza, risco para os direitos de outrem." ("A duty of repair holds, even without fault, in the cases described by statute law, or when the activity normally performed by the author of harm creates, by its own nature, risk for the rights of others.").

¹¹ See Fletcher, *supra* note 5, at 573.

¹² *Id.* at 550.

¹³ *Id.* at 542. Fletcher observes that the classification of risks as reciprocal or nonreciprocal may be controversial, *id.* at 572. He takes some heterogeneous risks to be fungible, as, for example, the risks of owning a dog as compared to those of owning a cat. Reciprocal risks are thus not indispensably identical risks, but risks possessing "unifying features." Yet he admits that "determining the appropriate level of abstraction is a matter of judgment."

drivers in a highway are subjected to reciprocal risks; they face the risk of being injured at playing and driving, respectively, but originate a comparable risk to others. Oppositely, citizens living nearby airports or nuclear plants are threatened by risks – the risks of plane crashes and nuclear accidents – that are in no similar measure brought by them to other citizens. These are cases of nonreciprocal risks.

Reciprocity governs the right of victims to recover their losses. When risks are reciprocal, there is no such right, since liability in these cases would do “no more than substitute one form of risk for another – the risk of liability for the risk of personal loss.”¹⁴ The right to recover is granted thus only for harms flowing from nonreciprocal risks, as a way of redressing the unfair distribution of risks arising in these circumstances.¹⁵ Fletcher makes at this point a concession to social utility, as he remarks that, since “the interests of society may often require a disproportionate distribution of risk,”¹⁶ lack of reciprocity does not necessarily allow potential victims to oppose the risk-creating activity. Individual interests are then protected through compensation, which figures as “a surrogate for the individual’s right to the same security as enjoyed by others.”¹⁷

The reciprocity criterion explains both strict liability and negligence. These are therefore best understood as different instances of a same fundamental idea rather than adversarial regimes of liability.¹⁸ In the case of strict liability, a risk is deemed nonreciprocal against a overall benchmark of risks that individuals living in society impose to each other. Nonreciprocal risks leading to strict liability are thus “threats of harm that exceed the level of risk to which all members of the community contribute in roughly equal shares”, like those of “blasting, fumigating, and crop dusting.”¹⁹ Negligence liability, on the other hand, corresponds to risks that are taken to be excessive against a discrete benchmark of risks created by people engaged in specific activities – or participating in narrower “communities of risk” –, such as drivers or ballplayers.²⁰

2.2. Fairness as Reciprocity of Harm: Gregory Keating

Keating presents the law of accidents as part of the fair terms of social cooperation described in Rawls’ theory of justice.²¹ Liability rules must be established, accordingly, in terms that reasonable people can accept.²² This bears on the distinction between acceptable and non-acceptable risks, which Keating takes as determining the division between strict liability and negligence, and on the distribution of benefits and burdens arising from risk-creating activities.

¹⁴ *Id.* at 547. In a footnote, Fletcher concedes that strict liability can be supported in cases of reciprocal risks as a way to spread losses when the defendant is in a position to do so, but criticizes the idea because it “violates the premise of corrective justice, namely that liability should turn on what the defendant has done, rather than on who he is.” *Ibid.*, footnote 40.

¹⁵ The loss flowing from a nonreciprocal risk gives the victim a right to compensation, but may not entail a correspondent duty to pay on the part of the defendant. This duty may be excluded when some excuse for the defendant’s conduct, such as compulsion or unavoidable ignorance, applies. *See id.* at 551-556.

¹⁶ *Id.* at 550.

¹⁷ *Ibid.* On compensation as the way to protect individual interests, *see also id.* at 568-569.

¹⁸ *Id.* at 549.

¹⁹ *Id.* at 547.

²⁰ *Id.* at 548.

²¹ *See* John Rawls, *A Theory of Justice* 17-21 (1971) (presenting the circumstances of the original position as circumstances under which fair terms of social cooperation can be set).

²² *See* Keating, *Regime Choice*, at 1866-1867.

Resting on a conception of persons as both rational and reasonable agents interested in the pursuit of individual ends and willing to constrain their liberty to do so according to terms that can be agreed by others,²³ Keating claims that one of tort law's aims must be that of fairly conciliating the freedom to engage in risky activities, which is occasionally required for the realization of one's ends, with the freedom from harm that also constitutes a condition of rational agency. An arrangement attempting to accommodate both species of freedom will permit some hazardous activities deemed more valuable than the competing interest in security, and will also proscribe those activities taken to be excessively dangerous.²⁴ While the negligence regime ascribes liability only for activities of the latter kind, strict liability encompasses all – permitted and non-permitted, reasonable and unreasonable – risk-creating activities.

As for the distribution of the benefits and burdens of risk-creating activities, Keating departs from Fletcher's conception of fairness by arguing for reciprocity of harm instead of reciprocity of risk. This leads him to reject the conclusion that, when risks are reciprocal, there is no point in substituting the risk of liability for the risk of loss. According to Keating, even when risks are reciprocal, fairness demands a special case of strict liability – enterprise liability – in order to pass the costs of risk-creating activities onto those who benefit from these activities. Reciprocity of harm – the division of the losses derived from dangerous activities – best fits the fundamental idea of fair cooperation because harm, and not risk, is what hinders rational agents from pursuing their ends.²⁵

While in Fletcher's account the idea of a community of risk representing the existence of reciprocal risks plays a crucial role, the key concept in Keating's account is that of enterprise or community of benefit. It is, as Keating acknowledges, an elastic concept, as one may take enterprise to correspond to an individual firm, to a whole industry, or to a group of people independently engaged in some activity, as in the case of no-fault automobile insurance.²⁶ Enterprise liability transcends therefore tort liability to encompass administrative schemes; it helps, furthermore, to understand why both tort and administrative insurance can be animated by the same principle of fairness according to which the losses arising out of an activity must be borne by those who benefit from this activity.²⁷ Although Keating lists some advantages of administrative schemes,²⁸ among them that of relaxing the causal requirement, he ends up observing that “whether the idea of fairness [...] is better embodied [...] by enterprise liability in tort, or by an administrative incarnation of enterprise liability, or by an administrative scheme of industry- or society-wide liability, is a matter that can only be settled by detailed examination of the possibilities at hand.”²⁹

The case for strict liability in tort that follows from Keating's version of the fairness principle and the related theory of enterprise liability is not without some qualifications.³⁰ While strict liability is generally fairer, negligence may be preferable in some specific situations due to the difficulty of linking losses to some activity without recurring to the idea of fault, the uninsurability of risks preventing losses from being spread among the individuals benefiting from a risk-creating

²³ *Id.* at 1862-1864 (describing persons as rational agents); 1866-1867 (exposing Rawls' notion of reasonability).

²⁴ *Id.* at 1868. For Keating's more precise account of which risks are fair, see Gregory C. Keating, *Pressing Precaution Beyond the Point of Cost-Justification*, 56 Vand. L. Rev. 653 (2003).

²⁵ See Keating, *Regime Choice*, at 1884: “Risk rarely impairs the ability to pursue a conception of the good over the course of a complete life. It is harm – physical injury and death – that wreaks havoc with people's lives.”

²⁶ *Id.* at 1903-1907.

²⁷ *Id.* at 1904.

²⁸ *Id.* at 1899-1903.

²⁹ *Id.* at 1907.

³⁰ *Id.* at 1908-1921.

activity (in these cases, strict liability just transfers losses from the plaintiff to the defendant, so that Fletcher's case for reciprocity of risk is revived), and competing normative concerns.

3. Optimal Insurance

One way to compensate accident victims is to pay for their losses the equivalent to optimal insurance. Optimal insurance rests on the assumption that one of tort law's purposes is, analogously to any insurance tool, to spread losses: thus, if tort damages aim at pulverizing the costs of accidents, they must be calculated in order to do so optimally. I shall differentiate here two conceptions of optimal insurance leading to different compensation criteria: optimal insurance as the insurance that individuals want to buy for an actuarially fair price (or consumer-sovereignty optimal insurance) and optimal insurance as the insurance that would be rational for individuals to buy under the same conditions (or rational optimal insurance). I present below the two conceptions in detail.³¹

As a compensation criterion, consumer-sovereignty optimal insurance requires compensation to mimic the results of an ideal insurance market. The latter is a market where information is perfect and insurance is sold for actuarially fair prices,³² i.e., each individual must pay for insurance the equivalent to her or his expected loss.³³

Once the consumer-sovereignty rule is accepted, the correct level of compensation must be determined on the basis of empirical evidence on individuals' preferences.³⁴ This evidence is hard to obtain, however, since data collected from real markets are useful in this case only to the extent that such markets present the properties of the ideal market. The challenge faced by consumer-sovereignty optimal insurance is well illustrated by the discussion involving pain-and-suffering damages; scholars who criticize tort compensation of pain-and-suffering losses for providing excessive insurance tend to rely more on a specific account of rational choice than on empirical evidence yielded by real markets, as the actual lack of insurance for pain-and-suffering losses is acknowledged as a possible consequence of "supply-side difficulties"³⁵ resulting from imperfect information.³⁶

³¹ I depart here from Schwartz's use of the term "consumer sovereignty." See Schwartz, *supra* note 4, at 355. Schwartz refers to the consumer-sovereignty norm as claiming allegiance to the choices that "informed, competent consumers" would do, thus associating consumer sovereignty with rational choice.

³² To break even, insurance firms would need to establish prices reflecting not only the expected costs of insurance for each individual, but also administrative costs. It is not relevant for this Article's purposes whether administrative costs must be taken into account for determining optimal insurance. For a related discussion in the context of egalitarianism, see Ronald Dworkin, 'Sovereign Virtue' Revisited, 113 Ethics 106, 108-111 (2002).

³³ Another trait of such ideal market is the absence of income restrictions preventing individuals from buying advantageous insurance.

³⁴ In the version presented above, consumer-sovereignty optimal insurance is related to the preferences individuals manifest before suffering an injury. As some accidents may change victims' preferences on how resources should have been distributed among their pre- and pos-injury selves, it becomes a question which preferences should be taken into account in those cases.

³⁵ See Schwartz, *supra* note 4, at 365. See also Patricia M. Danzon, *Tort Reform and the Role of Government in Private Insurance Markets*, 13 J. Legal Stud. 517, 524 (1984) ("private choices may not be adequate evidence, to the extent that they are constrained by consumer misperceptions, moral hazard, adverse selection, and loading charges.").

³⁶ The development of a insurance market for nonmonetary losses may also be hindered by social norms, as it is arguably the case for the emotional pain following the death of a relative. See Steven P. Croley & Jon D. Hanson, *The Nonpecuniary Costs of Accidents*, 108 Harv. L. Rev. 1785, 1874-1875 (1995) (social norms may respond for parents' refuse to be insured against the loss of a child). Finally, tort law rules and social insurance mechanisms providing

Insofar as data obtained from real markets turn out to be unreliable, the evidence required to determine consumers' desired level of compensation must be gathered in some other way. An example is provided by two experimental studies conducted by Ronen Avraham, whereby participants faced the decision to buy insurance for possible losses coming from the use of some products.³⁷ Since the experiment's aim was to compare the demand for insurance against monetary and nonmonetary losses, the respondents had the choice of buying insurance against both species of losses, just one of them, or none at all. The results show similar demand of insurance for the two species of losses, thus undermining the case commonly raised by law-and-economics scholars against compensation for pain and suffering – to the extent, at least, that this case rests on the consumer-sovereignty rule. As Avraham himself acknowledges, however, more evidence is needed in order to support some conclusion on the issue.³⁸

At first glance, the lack of empirical evidence regarding people's preferences is less a matter of concern whether one takes optimal insurance to be the insurance that a rational individual would purchase.³⁹ To determine tort compensation in accordance with the rational version of the optimal insurance rule, one has to rely on some account of rational behavior rather than on evidence regarding which preferences people have, or which preferences they would have in some ideal circumstances.

In law-and-economics scholarship, the most popular account of rational behavior associated with optimal insurance equates rational behavior to utility-maximizing behavior. A rational individual is conceived as one who maximizes her utility across several states of the world. Considering, for example, a rational agent *i* and two states of the world *s1* and *s2*, where *s1* is the current state where a decision to buy insurance has to be made and *s2* is a future state where *i* has been injured, the utility-maximizing account of rationality reads that *i* will buy the amount of insurance that maximizes the total utility she experiences in *s1* and *s2*. If insurance prices are actuarially fair, what is usually assumed, the purchase of insurance is a simple transfer of money from *s1* to *s2*. Thus, in order to maximize her aggregate utility, *i* will buy insurance as long as, and to the extent that, the utility she extracts from money is greater in *s2* than in *s1*. Put differently, she will use insurance to transfer money between *s1* and *s2* up to the point where the marginal utility of money in both states of the world is the same.

Once rational behavior is understood as utility-maximizing behavior, the purchase of insurance turns out to be rational only for accidents that increase the marginal utility of money to the victim. Being insured in the remaining cases – for example, when a painful event undermines the victim's taste for life and steeply reduces the value of money for her – is to forgo resources now in order to have them back later, at a time when they are less valuable, or no valuable at all.

To determine the level of compensation that maximizes utility, one has therefore to compare agents' marginal utility of money in the pre- and post-injury states of the world. Evidence is needed here, although not on people's preferences, as in the case of the consumer-sovereignty rule, but on

compensation for pain and suffering may also undermine consumers' incentive to buy insurance and thus turn the data provided by insurance markets unreliable for consumer-sovereignty optimal insurance purposes. See Randall R. Bovbjerg, Frank A. Sloan & James F. Blumstein, *Valuing Limb and Life in Tort: Scheduling "Pain and Suffering,"* 83 Nw. U. L. Rev 908, 933 (1989).

³⁷ See Ronen Avraham, *Should Pain-and-Suffering Damages Be Abolished from Tort Law? More Experimental Evidence,* 55 U. Toronto L.J. 941 (2005).

³⁸ *Id.* at 955, footnote 51.

³⁹ The lack of empirical evidence is nevertheless a matter of concern for those relying on the rational conception of optimal insurance as long as the chosen account of rational behavior is supposed to fit actual behavior.

the effects of accidents on marginal utility of money. As this evidence is in general not available,⁴⁰ assumptions take place here; so, assuming that money has decreasing marginal utility, it is claimed that accidents causing material losses increase the marginal utility of money to the victim, and that utility-maximizing insurance for material harm is accordingly full insurance; as the same assumption does not hold in the case of nonmaterial losses, it is also claimed that optimal compensation for accidents causing such losses may be lesser than full compensation.⁴¹

As utility-maximizing behavior is not the only conceivable account of rational behavior, optimal insurance can assume other meanings. Disputing the predominant view in law-and-economics analysis, Croley and Hanson, for instance, have argued that optimal insurance may represent a compromise between the goals of maximizing and equalizing utility.⁴² Rational agents may care not only about maximizing utility throughout their lives, but also about equalizing the utility they will have in each one of the many possible states of the world. As the two goals may conflict – equalizing the utility of different “selves” may reduce the overall amount of utility, as much as a social policy fighting differences of utility between citizens may reduce social utility – rational insurance arguably corresponds neither to maximizing nor to equalizing utility, but to an apportionment of resources that partially meets each one of the competing goals.⁴³

It is also possible to take rational behavior as one concerned not only with utility – be the maximization of utility across states of the world, be the equalization of the utility experienced in each one of those states. In the last years, Sen has argued for taking into account functionings (“beings” and “doings” not necessarily related to utility, as, for example, literacy and longevity) and capability (the set of possible functionings) as adequate “spaces” of well-being measurement and comparison and indispensable parts of rational agency.⁴⁴ The core idea in this case is that rational actors may be interested in expanding their capability sets in order to function in ways they have reason to find valuable, no matter the utility that can be extracted from this. The fact, therefore, that some accidents have deleterious effects on the ability to enjoy life does not mean that it is not

⁴⁰ Viscusi and Evans’ estimates of the effects of personal injury on the marginal utility of money have been based on the amounts of compensation required by potential victims (workers in one study, buyers of dangerous products in the other) to be exposed to incremental risks. See W. Kip Viscusi & William N. Evans, *Utility Functions That Depend on Health Status: Estimations and Economic Implications*, 80 Am. Econ. Rev. 353 (1990); *Estimation of State-Dependent Utility Functions Using Survey Data*, 73 Rev. Econ. Stat. 94 (1991). These estimates are reliable, however, only to the extent that respondents’ choices were rational ones. To assume that a potential victim of harm maximizes her across-states total utility – be through the purchase of insurance, be through requiring ex ante compensation for risk exposure – is to assume that she is able to compare the marginal utility that money currently has to the marginal utility that money will have to her should an injury occurs; it means to assume, thus, that potential victims can correctly anticipate the interests they will have in post-injury states of the world and take decisions that will maximize their utility accordingly.

⁴¹ See John E. Calfee & Paul H. Rubin, *Some Implications of Damage Payments for Nonmonetary Losses*, 21 J. Legal Stud. 371 (1992); Robert Cooter, *Towards a Market in Unmatured Tort Claims*, 75 Va. L. Rev. 383, 388-392 (1989); Schwartz, *supra* note 4, at 362-365; Priest, *supra* note 4, at 1546-1547; SHAVELL, *supra* note 4, at 228-231; Philip J. Cook & Daniel A. Graham, *The Demand for Insurance and Protection: The Case of Irreplaceable Commodities*, 91 Q. J. Econ. 143 (1977).

⁴² See Croley & Hanson, *supra* note 4, at 1812-1834. The authors present their account as an account of the consumer-sovereignty rule, “credible to the extent that it resonates with observed human behavior” (*id.* at 1813). They show to have in mind the rational version of the rule as well, however, as they observe that a decision to balancing maximizing and equalizing concerns “surely [...] is not irrational.” (*id.* at 1834).

⁴³ I prefer this formulation of Croley and Hanson’s idea, since it avoids the distinction between baseline-independent and baseline-dependent marginal utility (*id.* at 1814-1815). I find this distinction puzzling, because it seems to decompose marginal utility into two different phenomena.

⁴⁴ See, e.g., Amartya Sen, *Well-Being, Agency and Freedom: The Dewey Lectures 1984*, 82 J. Phil. 169 (1985).

rational to provision victims with resources that will aid them to realize goals they find valuable to pursue in their injured state.

In spite of the variety of interpretations, one can identify the central idea of optimal insurance as being that of reconciling the interests that individuals have before an accident occur, which correspond to the opportunity costs of buying insurance, and the interests they have after being victims of an accident. The difference between the consumer-sovereignty and the rational approaches lies in that the former conciliates both interests in accordance with the preferences individuals have, or, more exactly, with the preferences they would have were information perfect and prices actuarially fair, while rational optimal insurance rests on some account of how rational agents would dispose of their conflicting pre- and post-injury needs.⁴⁵

What all that reveals is a conceptual difference between compensation understood as optimal insurance and full compensation. While optimal insurance takes into account the interests of both pre and post-injury states, full compensation only envisages the latter.⁴⁶ This conceptual difference holds no matter the more precise meaning one ascribes to optimal insurance, and is thus likely to have practical significance even if the utility-maximizing account prevailing in economic literature is rejected.

4. The Fair Level of Compensation (I): when compensation costs are borne by potential victims

I turn now to the central question of the paper, namely, that of determining the level of compensation required by fairness approaches to strict liability. I shall argue that fairness generally requires compensation to correspond to optimal insurance rather than full compensation.

The arguments concerning the fair level of compensation are affected by the fact that in some cases, but not in others, compensation costs are borne by the potential victims of harm. I shall deal with the former class of cases now, and address the latter in the next section. While I refer to the distinction of the two classes of cases as a clear-cut one, it should be kept in mind that potential victims may bear the costs of compensation to a variable extent,⁴⁷ and in more or less direct ways. Consumers, for example, support the costs of compensation paid to the victims of defective products only to the extent that such compensation leads prices to raise; non-consumers may also be harmed, but in a less direct way, if the payment of compensation hinders firms to invest in research and development of new products or increases unemployment rates. Here I shall treat as cases where

⁴⁵ In an article published some years ago, Pryor criticizes the insurance theory of compensation for determining compensation measures on the basis of people's preferences. She argues, first, that pre-injury preferences concerning insurance are unreliable because healthy individuals are unable to anticipate the needs they will have should they become disabled as the result of an accident; second, post-injury preferences are also unreliable to the extent that disabled individuals' preferences are downed by social stigmatization. See Ellen Smith Pryor, *The Tort Law Debate, Efficiency, and the Kingdom of the Ill: A Critique of the Insurance Theory of Compensation*, 79 Va. L. Rev. 91 (1993). It should be noted that Pryor's criticisms refer to just one kind of optimal insurance, namely, consumer-sovereignty insurance, and not to optimal insurance in a general way.

⁴⁶ This is not to say that full insurance meets the interests of victims satisfactorily. As Pryor has argued, if the goal of full compensation is taken to be the restoration of the status quo ante, one misses the fact that injury sometimes affects values and aspirations and hence creates needs that are not likely to be fulfilled by any attempt to bring victims back to their pre-injury state. See Ellen S. Pryor, *Rehabilitating Tort Compensation*, 91 Geo. L. J. 659, 669-676 (2003).

⁴⁷ On this, see Richard Craswell, *Passing On the Costs of Legal Rules: Efficiency and Distribution in Buyer-Seller Relationships*, 43 Stan. L. Rev. 361 (1991).

compensation costs are borne by potential victims only those in which this occurs to a considerable extent, and in a readily ascertainable way.

When potential victims bear the costs, the level of compensation that best fits the interests of injured people is optimal insurance. It is so because optimal insurance takes into account the interests individuals have through their whole life, rather than only their interests qua victims of harm. It takes into account the opportunity costs of buying insurance, which in the case of tort liability are commonly incurred in the form of higher prices or lower wages, as well as the specific needs that injury may create. Optimal insurance is accordingly superior to full compensation, since the latter focuses exclusively on the injured self, thereby disregarding the interests individuals have before suffering injury.

One has to ask, however, not only whether optimal insurance is in the best interest of victims of harm, but also whether it is fair. Take Fletcher's account in the first place. The principle of fairness governing the law of accidents is, according to him, that citizens are entitled to a level of safety which is compatible with a similar level to everyone else. Compensation takes place when that right is infringed by the creation of non-reciprocal risks.

One may interpret Fletcher's principle of fairness as establishing conditions of equal advantage for all citizens. If risks are reciprocal, individuals benefit from risk-creating activities to an equal extent, so that there is no point in imposing liability should an accident occur – liability would then just “substitute one form of risk for another”.⁴⁸ Non-reciprocal risks infringe the condition of equal advantage, leading to compensation as “a surrogate for the individual's right to the same security as enjoyed by others.”⁴⁹ Once the goal of compensation is taken to be that of restoring a baseline of equal advantage, it is reasonable to conclude that it should not be detrimental to the interests of those who have been harmed by the imposition of asymmetrical risks, since these are the citizens whom equal advantage has been denied. Compensation must instead attend to the interests of these individuals, up to the point, of course, where doing so would contravene equal rights of others. When set above the level of optimal insurance, however, compensation is detrimental to the interests of victims broadly considered and to the interests of other citizens. It not only departs, thus, from the fairness requirement, as also represents a violation of the Pareto principle.⁵⁰

Turning now to Keating's account of enterprise liability, we have seen that, according to him, fairness requires tort law to reconcile citizens' competing interests in liberty and security in terms that everyone can reasonably agree. Keating rejects Fletcher's account of reciprocity of risk since it is harm, not risk, which hinders individuals to pursue their goals. Enterprise liability promotes reciprocity of harm by distributing the burdens of accidents among those who benefit from risk-creating activities, instead of leaving them where they fall. This seems more reasonable, given the possible effects of harm on one's life; we may want to curtail freedom in the way enterprise liability does in order to attenuate the impact of accidents through distribution.

⁴⁸ See Fletcher, *supra* note 5, at 547.

⁴⁹ *Id.* at 550.

⁵⁰ This seems to be the most plausible interpretation of Fletcher's fairness principle, notwithstanding his endorsement of “the premise of corrective justice” according to which “liability should turn on what the defendant has done, rather than on who he is.” See *id.* at 547, footnote 40. Fletcher's central argument for compensation is the violation of the baseline right to equal security, and not, as in more characteristic corrective justice theories of tort law, the rectification of a wrongdoing. This allows Fletcher to detach the right to compensation from the respective duty and to declare the subsistence of the former even in cases where an excusatory rule prevents the defendant to be found liable for the harm caused (*id.* at 551-556).

There are at least two points linking fairness to optimal insurance in this case. First, fairness is thought to impose reasonable terms to govern citizens' whole lives, not only the lives they lead after suffering injury. Citizens have reason to reject, thus, whichever terms privileging some of the interests they have in detriment to others, as is the case of liability rules granting victims of accidents a right to be compensated under or above the level of optimal insurance. Second, the same reason urging tort law to envisage harm instead of risk – the negative impact of harm on the pursuit of one's ends – favors optimal insurance in that the latter takes into account not only the goals individuals want to pursue after injury has occurred, but also those they generally have and may be impeded to achieve by the costs of insurance.

We can generalize the point made in the last paragraphs by observing that, when the costs of compensation are borne by potential victims, whatever attempt to support strict liability on the basis of the interests of harmed people must also support optimal insurance as the proper level of compensation, unless there is some reason to take victims' interests as being only those arising from injury rather than the interests they have throughout their lives. It is hard to imagine which reason this could be.

It is important to stress the difference between the argument above stated and any sort of utilitarian argument which, by sacrificing individual interests in name of the social good, become vulnerable to the objection of not taking the distinctness of individuals seriously.⁵¹ To the extent that optimal insurance compromises individual interests by awarding victims less than full compensation, it does so not only in the interest of others, but also, and fundamentally, in the interests of the victims themselves. A higher level of compensation would be against victims' interests – or, more exactly, against the right balance between their competing interests in compensation and whatsoever goals the achievement of which may be hindered by the payment of insurance.⁵²

I conclude this section by mentioning another sort of argument suited to oppose optimal insurance even in cases where compensation costs are distributed among potential victims. To the extent that optimal insurance compensation is lesser than full compensation, it may curtail victim's rights or capabilities in a way deemed to be incompatible with minimal requirements of justice. Moreover, in extreme cases where compensation is literally a life-or-death issue, optimal insurance may drastically reduce or even eliminate victims' chances of survival.⁵³ In order to reject optimal insurance on the basis of victims' rights, however, one has to endorse a theory of justice warranting protection to basic rights even when such protection contradicts the interests of the individuals who bear these rights. This is to endorse, in other words, a view of basic rights as intangible rights. Although it is not within the scope of this Article to assess theories of justice expressing such a view, it should be noted that there is no evident link between such theories and accounts of strict liability relating the latter to ideas of reciprocity or reasonable distribution of benefits and burdens of risk-creating activities.

⁵¹ See Rawls, *supra* note 21, at 29.

⁵² It has been argued that the loss spreading performed by tort law turns is unfair since richer consumers are likely to get larger amounts of compensation than poorer ones. See Priest, *supra* note 4, at 1558-1559. No matter how powerful, however, this is an argument against fairness theories of strict liability as such. Examining it is thus beyond the scope of this Article, whose aim is to inquire whether fairness theories, taken in their own terms, would require a level of compensation different from optimal insurance.

⁵³ This problem is more acutely faced when the absence of social insurance turns tort law into the only source of compensation.

5. The Fair Level of Compensation (II): when compensation costs are not borne by potential victims

When compensation costs are not borne by the potential victims of accidents, full compensation matches the interests of victims better than optimal insurance does. In these cases, victims will not be made better off by a rule granting them only the level of compensation which corresponds to the insurance they would have wanted to buy or that it would have been rational to them to buy before the accident occurs. Instead, victims will be made better off by receiving as much compensation as possible.

Once again, however, what we should ask is not which compensation level is in the best interest of accident victims, but which compensation level is the fairest one. One argument supporting optimal insurance as the fair level of compensation when the costs of damage payments are not passed on to potential victims is the following: even when potential victims do not pay the costs of compensating the victims of a particular activity, they do pay the costs of compensating victims of other risk-creating activities. This holds as a consequence of social cooperation; once we benefit from that some of our fellow citizens do, we benefit from activities that can be harmful to third parties, and may thus be called to bear the costs of compensating the victims of these activities. Taking this basic fact about social living into account, one is allowed to conclude that optimal insurance fairly attends the interests of accident victims as long as a basic condition of reciprocity is met, i.e., as long as accident victims benefit from and are subjected to the compensation costs of other risk-creating activities to which the optimal insurance rule is also applied.

When reciprocity applies, optimal insurance is not only a fair level of insurance, but is also the fair level of insurance that best fits the interests of accident victims. To see this, take first an individual i who is a potential victim of a hazardous activity $a1$, and also benefits from and support the costs of compensating people harmed by other hazardous activity, $a2$. The best possible world for i is a world in which victims of $a1$ get as much compensation as possible and victims of $a2$ get no compensation at all. This is not, however, a fair world. Compare now two possible worlds that are fair: one, $w1$, in which the victims of both $a1$ and $a2$ receive compensation equivalent to optimal insurance, and other, $w2$, where all victims are fully compensated. Here the argument developed in the previous section holds: $w1$ does better for the interests of i than $w2$, since the former reconciles the interests of i qua victim of harm and the other interests she may have and that she may be hindered to pursue by the bearing of compensation costs, while $w2$ is a world in which interests of the latter sort are not taken into account.

The way in which optimal insurance finds support on Fletcher's and Keating's accounts of strict liability here is similar to the previously explained, and thus may be briefly stated. Optimal insurance satisfies the principle of mutual advantage embedded in Fletcher's reciprocity criterion to the extent that all citizens bear the costs of compensating the harm created by some activities and are therefore made better off by a rule of compensation that properly reconciles (according to citizens' preferences or to the best account of what would be rational to them to do) the competing interests individuals have in being compensated and pursuing goals that may be turned harder or even impossible to achieve by the payment of compensation costs. Similarly, as the costs of enterprise liability are costs borne by all – different people bearing the costs of compensating harm caused by different activities –, optimal insurance matches Keating's picture of accident law as part of social terms of cooperation that reasonable individuals can accept.

Let's consider some possible objections. First, it can be argued that although optimal insurance is advantageous for all citizens – since all of them benefit from social cooperation and are forced by strict liability to bear the costs of the harm caused by some activities –, it is not advantageous for everyone to the same extent. Some benefit from the likely reduction of compensation costs flowing from the optimal insurance rule and end up not harmed, while others also benefit from the reduction of costs, but become victims of accidents. Thus, as long as optimal insurance leads to lesser than full compensation, it makes the former better off than the latter.

One possible response to this objection is that, although optimal insurance may in fact be more beneficial to some individuals than to others, there is no other rule that can be vindicated by the latter. Given the condition of reciprocity, whichever rule chosen to replace optimal insurance would need to be applied to the compensation of all accident victims, changing thus the general level of compensation in a way that is also detrimental to the interests of harmed people. So even if it favors some individuals more than others, optimal insurance seems to be the best solution for agents seeking for reasonable terms of cooperation that everyone can agree.⁵⁴

A second objection stresses the different levels of benefits and burdens that a rule of optimal insurance may yield *ex ante* – i.e., before accidents occur – to different individuals. In spite of the omnipresence of risk-creating activities and the potential of strict liability to spread compensation costs among all citizens, an arrangement providing optimal insurance is *ex ante* less advantageous for some individuals if (1) their risk of suffering injury is larger or (2) they are likely to bear compensation costs to a lesser extent. The greater the risk of suffering injury, the lesser is the relative advantage of optimal insurance; assuming that optimal insurance compensation may be less than full compensation, one will bear smaller compensation costs, but may be not fully compensated should an injury takes place. Similarly, the lesser the extent to which one is likely to bear compensation costs, the smaller is the advantage flowing from the reduced level of compensation determined by optimal insurance.

If the just mentioned differences are large, there may be cases in which some individuals will be better off under a rule of full compensation than under optimal insurance. Such are cases in which optimal insurance will not be mutual advantageous, nor it will be a rule that everyone can accept. If some individuals are so vulnerable to injury or are likely to bear compensation costs to a so negligible extent that full compensation is, all things considered, more beneficial to them than optimal insurance, why would they agree to the latter?⁵⁵ Of course, it is not worth here to say that optimal insurance advances the general good more than full compensation, since that is not the kind of argument on which a non-utilitarian account of strict liability can rely.

Which are the people to whom optimal insurance may be *ex ante* less advantageous than full compensation? It is not a specially hard task to identify people whose abnormal exposition to risk may turn full compensation a more attractive rule, the most prominent example being undoubtedly that of individuals working at highly risky jobs. More refined empirical proof is needed, on the other hand, in order to identify people pertaining to the second disadvantaged group, i.e., those to whom

⁵⁴ The point is analogous to that made by Rawls when arguing for the difference principle. See Rawls, *supra* note 21, at 151: "If there are inequalities in the basic structure that work to make everyone better off in comparison with the benchmark of initial equality, why not permit them? The immediate gain which a greater equality might allow can be regarded as intelligently invested in view of its future return. [...] A person in the original position would, therefore, concede the justice of these inequalities. Indeed, it would be shortsighted of him not to do so."

⁵⁵ One could say that, even if an individual will not significantly bear the costs of compensating harm caused by dangerous activities, it would be reasonable to her to endorse optimal insurance to the extent that she benefits from such activities. But since people who benefits from an activity are most of the time those who end up incurring the costs of liability rules, the problem stated in the text remains.

optimal insurance may become less attractive than full insurance because they bear the costs of compensation to a too small extent. Yet as one of the main forms whereby these costs are distributed is via higher prices, it is plausible to assume that low-income individuals with lower consumption rates are more likely to pertain to that group. If that is so, one is allowed to conclude, interestingly, that the fairness case for optimal insurance is less compelling when the victims of accidents are poor.⁵⁶

To be sure, affirming that the argument developed so far may not be convincing in some cases is not the same as affirming that full compensation must prevail in such cases. There may be other arguments to support optimal insurance as the compensation rule even when accident victims are not among the people to whom this rule shows to be beneficial across time, as one can demonstrate that the disadvantage caused by less than full compensation is in some way offset by other rules. Since tort law is surely not the only institutional mechanism whereby fairness can be achieved, the means to repair unfair outcomes of tort rules may be located out of the tort domain, so that further arguments for optimal insurance can take a very broad form. Advancing such arguments is not however, within the scope of this Article.

6. Deterrence Concerns

It is well known in the economic literature that the level of damages corresponding to optimal insurance may not be optimal from the standpoint of deterrence.⁵⁷ Optimal deterrence requires that individuals and firms fully internalize the harm their activities cause to others, and full internalization demands, roughly speaking, that injurers be found liable for the entire losses they have inflicted to their victims. To the extent that this is so, and also to the extent that optimal insurance departs from full compensation, the goals of deterrence and optimal insurance are conflicting goals.

Deterrence is not a problem, however, if a negligence rule holds and strict liability is imposed solely on grounds of fairness. Negligence, remember, is taken here as a rule attaching liability to undesirable risk-creating activities. If a negligence rule holds, the domain of strict liability is ideally circumscribed to activities that, though potentially harmful, are socially valuable and thus not to be prevented.⁵⁸ Setting the level of compensation for losses flowing from these activities to match the optimal insurance level is not detrimental to deterrence.⁵⁹

The attractiveness of full compensation increases only whether, instead of supporting strict liability exclusively on grounds of fairness, one also does it on grounds of efficiency. The reasons why strict liability may be preferable to negligence on efficiency grounds have been extensively discussed

⁵⁶ This conclusion needs to be qualified, however, in that even if the compensation costs absorbed by poor people are lower in absolute terms, the impact of these costs, given budget restraints, can be comparable to or even greater than that of the costs imposed to rich people.

⁵⁷ See Arlen, *supra* note 9, at 702-709. Arlen also explains why a conflict between deterrence and insurance may sometimes not arise. See *id.* at 704-705

⁵⁸ This is well stressed in both Fletcher's and Keating's accounts. See Fletcher, *supra* note 5, at 544: "In general, the diverse pockets of strict liability represent cases in which the risk is reasonable and legally immune to injunction. They are therefore all cases of liability without fault in the limited sense in which fault means taking an unreasonable risk."; Keating, *Regime Choice*, *supra* note 5, at 1870-1871: "The essential distinction (in my view) is that negligence liability criticizes conduct, whereas strict liability criticizes merely the failure to make reparation for harm done. [...] Negligence is liability for *unreasonable* risk imposition; strict liability is liability for *reasonable* risk imposition." (footnote omitted).

⁵⁹ To be sure, optimal insurance compensation in this case would still give rise to deterrence concerns in the domain of negligence liability.

in the law-and-economics literature, and need not be assessed in detail here.⁶⁰ What needs to be stressed is that, as long as the problems undermining the efficiency of the negligence rule are not present (or are outweighed by other problems resulting from strict liability, such as victims' reduced incentive to take care), the fair compensation one may want to achieve through strict liability turns out to be optimal insurance rather than full compensation.

7. Concluding Remarks

Throughout the paper, it has been argued that optimal insurance is not only compatible with fairness theories of strict liability, as it is also the level of compensation that best fits the moral backgrounds of such theories. This is remarkably the case when compensation costs are spread among the potential victims of a risk-creating activity; it also holds, though this time in a somewhat qualified way, when potential victims and individuals bearing the costs of liability are different people.

If the arguments above stated are correct, the implications of fairness and efficiency theories of strict liability coalesce to a considerable extent. It remains to be ascertained whether tort law constitutes the proper way to yield optimal insurance – though in Keating's account of enterprise liability nor even this issue turns out to be polemical, since enterprise liability is not restricted to tort liability and also encompasses administrative schemes of insurance – as well as the extent to which compensation must depart from optimal insurance in order to attend deterrence purposes.

The question of what optimal insurance means is of course also a open one. Nothing that has been said thus far compels one to adhere to a specific view of optimal insurance, as, for example, that prevailing in the economic literature. What this Article has been stressed is the importance of assessing that question, also for those who do not take efficiency to be the main goal of accident law.

8. References

- ARLEN, Jennifer. *Tort Damages*. In *Encyclopedia of Law and Economics*, v. II: Civil Law and Economics, p. 702-709 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000).
- AVRAHAM, Ronen. *Should Pain-and-Suffering Damages Be Abolished from Tort Law? More Experimental Evidence*. 55 *University of Toronto Law Journal*, p. 941 (2005).
- BOVBJERG, Randall R.; SLOAN, Frank A. & BLUMSTEIN, James F. *Valuing Limb and Life in Tort: Scheduling "Pain and Suffering"*. 83 *Northwestern University Law Review*, p. 908 (1989).
- CALFEE, John E. & RUBIN, Paul H. *Some Implications of Damage Payments for Nonmonetary Losses*. 21 *Journal of Legal Studies*, p. 371 (1992).
- CASTRO, Guilherme Couto de. *A Responsabilidade Civil Objetiva no Direito Brasileiro*. 3d ed. Forense, 2000.
- COOK, Philip J. & GRAHAM, Daniel A. *The Demand for Insurance and Protection: The Case of Irreplaceable Commodities*. 91 *Quarterly Journal of Economics*, p. 143 (1977).
- COOTER, Robert. *Towards a Market in Unmatured Tort Claims*. 75 *Virginia Law Review*, p. 383 (1989).
- COOTER, Robert & ULEN, Thomas. *Law & Economics*. 4th ed. Addison Wesley, 2004.

⁶⁰ See note 4, *supra*.

- CRASWELL, Richard. *Passing On the Costs of Legal Rules: Efficiency and Distribution in Buyer-Seller Relationships*. 43 Stanford Law Review, p. 361 (1991).
- CROLEY, Steven P. & HANSON, Jon D. *Rescuing the Revolution: The Revived Case for Enterprise Liability*. 91 Michigan Law Review, p. 683 (1993).
- CROLEY, Steven P. & HANSON, Jon D. *The Nonpecuniary Costs of Accidents*. 108 Harvard Law Review, p. 1785 (1995).
- DANZON, Patricia M. *Tort Reform and the Role of Government in Private Insurance Markets*. 13 Journal of Legal Studies, p. 517 (1984).
- DWORKIN, Ronald. 'Sovereign Virtue' Revisited. 113 Ethics 106 (2002).
- EPSTEIN, Richard. *A Theory of Strict Liability*. 2 Journal of Legal Studies, p. 151 (1973).
- FLETCHER, George P. *Fairness and Utility in Tort Theory*. 85 Harvard Law Review, p. 537 (1972).
- HANSON, Jon D. & LOGUE, Kyle D. *The First-Party Insurance Externality: An Economic Justification for Enterprise Liability*. 76 Cornell Law Review, p. 129 (1991).
- KEATING, Gregory C. *The Idea of Fairness in the Law of Enterprise Liability*. 95 Michigan Law Review, p. 1266 (1997).
- KEATING, Gregory C. *Pressing Precaution Beyond the Point of Cost-Justification*. 56 Vanderbilt Law Review, p. 653 (2003).
- KEATING, Gregory C. *Rawlsian Fairness and Regime Choice in the Law of Accidents*. 72 Fordham Law Review, p. 1857 (2004).
- LIMA, Alvino. *Da Culpa ao Risco*. Revista dos Tribunais, 1938.
- PERRY, Stephen R. *The Moral Foundations of Tort Law*. 77 Iowa Law Review, p. 449 (1992).
- POSNER, Richard. *Economic Analysis of Law*. 7th ed. Aspen, 2007.
- PRIEST, George L. *The Current Insurance Crisis and Modern Tort Law*. 96 Yale Law Journal, p. 1521 (1987).
- RAWLS, John. *A Theory of Justice*. Belknap Press, 1971.
- PRYOR, Ellen Smith. *The Tort Law Debate, Efficiency, and the Kingdom of the Ill: A Critique of the Insurance Theory of Compensation*. 79 Virginia Law Review, p. 91 (1993).
- PRYOR, Ellen Smith. *Rehabilitating Tort Compensation*. 91 Georgia Law Journal, p. 659 (2003).
- RIPSTEIN, Arthur. *Equality, Responsibility, and the Law*. Cambridge University Press, 1999.
- SCHWARTZ, Alan. *Proposals for Products Liability Reform: A Theoretical Synthesis*. 97 Yale Law Journal, p. 353 (1988).
- SEN, Amartya. *Well-Being, Agency and Freedom: The Dewey Lectures 1984*. 82 Journal of Philosophy, p. 169 (1985).
- SHAVELL, Steven. *Economic Analysis of Accident Law*. Harvard University Press, 1987.
- VENOSA, Sílvio de Salvo. *Direito Civil: responsabilidade civil*. 3d ed. Atlas, 2003.
- VISCUSI, W. Kip & EVANS, William N. *Utility Functions That Depend on Health Status: Estimations and Economic Implications*. 80 American Economic Review, p. 353 (1990).
- VISCUSI, W. Kip & EVANS, William N. *Estimation of State-Dependent Utility Functions Using Survey Data*. 73 Review of Economics and Statistics, p. 94 (1991).
- WEINRIB, Ernest. *The Idea of Private Law*. Harvard University Press, 1995.