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Getting Incentives Right— Responding to Critics

Robert Cooter* & Ariel Porat**

Introduction

On June 5, 2015, the *Jerusalem Review of Legal Studies* organized a symposium on our book, *Getting Incentives Right: Improving Tort, Contracts and Restitution* (Princeton University Press, 2014).¹ We were lucky to have three excellent scholars comment on our book (hereinafter: “the commentators”), offering criticisms but mainly shedding new light on many of the ideas developed in our book.²

We do not intend to respond to each and every point raised by the commentators not only because many of the points are right and well taken, but also because if we had done so we would have lost many of the readers of this essay, who have not read the entire book in the same depth as our commentators. Instead, we will refer to the commentators’ main concerns and try to respond.

Part I responds to an observation made by Ronen Avraham that we “have no problem . . . in crashing traditional legal structures that have been in use for centuries.”³ Although that might be taken as a compliment, we thought that it is a bit of exaggeration. Some of our ideas work within the legal doctrine, and some work outside it. When outside the legal doctrine, almost all of our ideas work within the logic of private law. Even our ideas that work outside the logic of private law work inside the logic of public law.

Part II responds to a critique made by Ronen Perry, and supported at least partly by Ronen Avraham and Henrik Lando, that implementing our proposals is administratively costly. While we think that high administrative costs could sometimes be a reason to avoid otherwise desirable modifications of the law, we argue that some of the modifications we propose would make implementation of the law less costly than today; for other modification courts can find ways to

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¹ Hereinafter: “the Book.”

² The commentators are Professors Ronen Avraham, Henrik Lando, and Ronen Perry.

³ See also Lando, *supra* note 2, at 236.

overcome the administrative hurdles after the modifications are made; and, finally, that some modifications are indeed administratively costly, but their benefits exceed those costs.

Part III responds to a challenge posed by Henrik Lando,⁴ according to which spreading risk matters as well as reducing risk when modifying the law. We agree. We will explain and illustrate the tradeoff between spreading and reducing the risk of accidents. We have not ignored this tradeoff in some of our proposals.

I. Do our proposals crash traditional legal structures?

A. Within legal doctrines

Some of our proposals work within the legal doctrine, pointing out a failure, or inconsistency of courts in applying legal rules. Take our self-risk idea, discussed in length by Ronen Avraham.⁵ In brief, we point out that when courts set the standard of care, they systematically ignore the fact that on many occasions the injurer not only imposes risks on others, but at the same time imposes risks on herself. We argue that in doing so they set the standard of care too low, sometimes more than 50% lower than the efficient level. We further explain why the fact that injurers internalize their own self risk does not solve the efficiency problem, as first intuition might suggest.⁶

Is accepting our proposal a revolution?⁷ Depending on the perspective one holds with respect to private law. If it is a corrective justice view, it is at least questionable whether the injurer's self-risk should count. If instead we consider tort law in general and negligence law in particular as promoting social welfare, it is really hard to see why the injurer's self-risk should not count, while ignoring it might distort incentives in a very pervasive way. Interestingly, when one looks at the famous Learned Hand formula, which is considered by many to represent current American negligence law,⁸ its algebraic terms

⁴ See also Perry, *supra* note 2, at 213.

⁵ The Book, chapter 2; Avraham, *supra* note 2, at 187–8, and also Perry, *supra* note 2, at 223.

⁶ To illustrate, imagine a driver who creates risk of \$7 for himself and \$8 for others, which the driver can eliminate by taking precautions that cost \$10. The cost of precaution exceeds the risk to others ($10 > 8$), so the court imposes no liability. This is a mistake by the court. Since precaution costs less than the driver's risk to himself and others ($10 < 7 + 8$), the driver should be considered negligent and bear liability. Otherwise, he would not take precautions of 10, as efficiency requires.

⁷ For arguing that it crashes the doctrine, see Avraham, *supra* note 2, at 187–8. Indeed our proposal was accepted by the RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 3, cmt. b (and Reporter's Note, cmt. b) (2010), as well as by the Israel Supreme Court: Valas v. Egged, 55 (5) P.D. 826, 844 (2001), (Hebrew) (In this case, a passenger was attacked by criminals at the central bus station, and sued the bus company for his injury under negligence law. The Supreme Court determined that in considering whether the bus company was negligent in failing to post guard at the station, not only reduction of the risks for passengers should be taken into account, but also reduction of risks to the bus company property).

⁸ RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM, § 3.

encompasses all risks, the injurer's self-risk *implicitly* included.⁹ This is not to say that Judge Hand thought of our proposal to account for the injurers' self-risk, since he himself clearly ignored it in a court decision he delivered.¹⁰

Turn next to our wrongful risks limitation argument.¹¹ Here we have made the argument that in negligence per se cases, when a statute by its explicit words intends to protect certain groups of victims, or to prevent certain types of harms, it might implicitly intend to protect also other groups of victims, or to prevent other types of harms, even though those victims or harms are not mentioned in the statute. Therefore, not only explicit victims should recover and explicit harms should be recoverable based on the breach of the duty imposed by the statute, but also implicit victims should recover and implicit harms should be recoverable. Our central point is that efficiency requires counting all foreseeable victims and harms. Otherwise, on many occasions, injurers would not only fail to take precautions viz a viz the victims and harms not mentioned in the statute, but also viz a viz the victims and harms who are mentioned there.¹²

Is accepting our proposal a revolution? That depends on the perspective one holds with respect to private law, or more accurately, with respect to interpretation of statutes protecting victims from harms injurers might inflict upon them. If we believe that legislatures regulating safety should be assumed to be welfare-maximizers, then in applying the doctrine of negligence per se, interpretation of statutes should be attentive to efficiency considerations. Efficiency wise, legislatures are expected to care for all victims and all harms they foresee. Indeed, it is often the case that some victims and some harms standing alone do not justify imposing special precautions on injurers for protecting victims or preventing harms, since the costs of those precautions exceed their benefits. Those victims and harms are in the background: as long as they stand alone, the legislature prescribes no special precautions for them (we call them background risks).

If, however, in certain occasions, other special groups of victims or harms are added to them (we call them foreground risks), it might be the case that the same precautions that were not costly justified with background risks only, are

⁹ The injurer is considered negligent when $B > PL$, when B stands for the burden of precautions, P for the probability of injury, and L for the loss. L, by the Hand Formula's terms, is not limited to losses related to victims only.

¹⁰ *Conway v. O'Brien*, 111 F. 2d 611 (2d Cir. Vt. 1940).

¹¹ The Book, *supra* note 1, ch. 3.

¹² To illustrate, assume that a statute obliges employers to install special railings along the stairs to provide safe conditions for disabled employees. Further assume that an employer breaches the statute, and an able-bodied employee falls on the stairs. A railing would have prevented the victim's fall. Under current law, the employee, whose injury was caused by the railing's absence, apparently cannot recover damages from the employer. The injured employee cannot recover because she is able-bodied, and the statute is interpreted as protecting only disabled employees. We argue that both abled-bodied and disabled employees should recover. For a numerical illustration see *infra* note 13.

now justified. Then, a statute would prescribe taking those precautions, and its wording would give the (false) impression that only the foreground risks mattered to the legislature, since those latter risks tipped the scale in favor of prescribing the precautions.

But in fact, it is likely that neither the background nor the foreground risks standing alone were sufficient to justify taking special precautions, but in the aggregate they were sufficient. Therefore, only if liability for breaching the statute is imposed for all foreseeable victims and harms which are on both the background and the foreground, injurers will comply with the obligation imposed by the statute and take precautions; otherwise they might refrain from doing so.¹³ Or so we argue.

Anyway, our argument goes with the idea embedded in the doctrine of negligence per se that only victims who were intended to be protected by the statute should be protected and only harms which the statute intended to prevent should be prevented. We argue, however, that the interpretation of the statutes, to determine who are the protected victims and harms, should be affected by efficiency considerations.

B. Outside legal doctrine (but within its economic logic)

On other occasions, we propose more radical modifications to the law, which change doctrines but work with the economic logic of private law.

Take our idea concerning lapses of attention.¹⁴ Accidents are often the result of lapses of attention. A lapse of attention is considered negligence under current law and it entails liability when it results in harm. We propose to allow injurers a lapse defense: if they can show that they took efficient precautions to reduce the level of their lapses they should bear no liability. We expose the inefficiencies resulting from current law's treatment of lapses, and explain how our proposal might mitigate them. Indeed, our proposal to modify the law challenges the legal doctrine, but it does it from inside. The idea of negligence is that society should tolerate reasonable risks and victims should not recover for their materialization. We argue that this same logic, which in fact could be supported by both efficiency and justice grounds,¹⁵ applies to lapses. After all

¹³ To illustrate, suppose background risks are 7, foreground risks are 8, and certain precautions of 10 simultaneously reduce both sets of risks to zero. While the foreground risks tipped the scale and made the precautions costly justified, with no liability for the materialization of both background and foreground risks, the injurer would not take efficient precautions.

¹⁴ The Book, *supra* note 1, ch. 4.

¹⁵ ERNEST J. WEINRIB, *THE IDEA OF PRIVATE LAW* 147 (2012) (arguing that there is a certain level of risk to which the injurer can expose the victim without committing a wrong, even if injury results); Gregory Keating, *Distributive and Corrective Justice in the Tort Law of Accidents*, 74 S. CAL. L. REV. 193, 200–03 (2000) (arguing that society should tolerate a reasonable level of risks if they are reciprocal); TZACHI KEREN-PAZ, *TORTS, EGALITARIANISM AND DISTRIBUTIVE JUSTICE* 95 (2007) (arguing that “the actor is required to refrain from creating risk for another only to a certain degree: there comes a point when the requirement to protect the interests of others comes at a cost deemed too high to the actor’s liberty”).

in most cases no one—take driving a car as a typical example—could reduce lapses of attention to zero unless he gives up the entire activity. Thus, the idea of a lapse defense is compatible with the economic (and justice-based) rationale underlying negligence law, even if it deviates from the current legal doctrine.

A second example is our proposal to allow benefactors to recover for unrequested benefits they conferred upon beneficiaries, thereby enabling the production of public goods.¹⁶ Specifically, sometimes a benefactor can create a public good—say, construct a garden on his property—which all beneficiaries can enjoy for free. Therefore, all beneficiaries try to free ride on others, refusing to share in the costs of producing the public good. As a result, many public goods are not created even though doing so would be efficient. We propose to allow creators of public goods to recover from beneficiaries for the benefits they conferred upon them.

This proposal seeks to change the legal doctrine, but once again, by making use of its economic logic. Under the current legal doctrine there is no liability for creating unrequested benefits, but only in exceptional categories of cases. One such category deals with common funds that are obtained through legal proceedings initiated by one party (or her attorney) but to which a group of people are entitled.¹⁷ Under certain conditions, the plaintiff is entitled to recover the expenses he incurred in benefitting everyone. The other fund recipients owe according to their relative shares in the process, even if they refused to back his efforts at the outset.¹⁸ The Third Restatement of Restitution and Unjust Enrichment, allows recovery in cases where “the recipient obtains a benefit in money” thereby substantially broadening the common funds category of cases.¹⁹

The idea behind the “common funds” rule is to enable the creation of public goods—when those are money payments—which might not be created without legal intervention, due to a free riding problem. We take the economic logic one step further. There are many other cases—so we argue—when free riding bars efficient creation of public goods. So why not to allow the benefactors in those cases to recover from beneficiaries for the benefits the former conferred upon the latter?

¹⁶ The Book, *supra* note 1, ch. 9.

¹⁷ For a discussion about the “common fund” rule, see JOHN P. DAWSON, *Lawyers and Involuntary Clients in Public Interest Litigation*, 88 HARV. L. REV. 849 (1975); JOHN P. DAWSON, *Lawyers and Involuntary Clients: Attorney Fees from Funds*, 87 HARV. L. REV. 1597 (1974).

¹⁸ An illustration is the case of an heir who initiates legal proceedings and ends up increasing the estate’s value, to the benefit of the other heirs as well. For examples of suits brought by an heir against his or her co-heirs see RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT § 29 cmt. g, illus. 23–25 (2011); 2 GEORGE E. PALMER, *THE LAW OF RESTITUTION* § 10.7 (1978). See also *Feick v. Fleener*, 653 F.2d 69, 75–79 (2d Cir. 1981) (holding that heirs who hired a lawyer whose representation was successful and led to an increase in the amount they received could not obtain restitution from other beneficiaries of the lawyer’s actions).

¹⁹ See RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT, § 30 (2011).

C. Outside legal doctrine (and outside its economic logic)

In some cases, our proposals deviate substantially from the legal doctrine and its economic logic, sometimes even from the economic logic of private law.

Let us start with Anti Insurance.²⁰ Here is the basic idea: breach of contract by the promisor poses a risk of loss to the promisee. The promisor can reduce this risk by taking precautions to avoid breaching, and the promisee can reduce this risk by cooperating more and relying less. Perfect incentives for the promisor and promisee require each of them to bear the cost of breach, so each of them balances the cost of breach against the cost of reducing it. In brief, perfect bilateral incentives require promisor's liability of 100% of the harm from breach and promisee's compensation of 0%.

To achieve this result, promisee and promisor can sign a contract with a third party called the "anti-insurer," who buys the promisee's right to compensation for breach. The promisee gains the sale price of the liability right. If a breach materializes, promisor pays compensation of 100% to the anti-insurer. The promisee who assigned the right to the promisor receives no compensation for the promisor's breach. With anti-insurance, promisor's liability for breach is 100% and promisee's compensation is 0%, as required for efficient incentives.

Anti-insurance does not exist in legal doctrine or contracts, although some contracts approximate it. Still, anti-insurance characterizes the economic logic to solve a problem in the real world. Even if today it does not exist, it might exist in the future.

Turn now to total liability for excessive harm.²¹ In some cases, injurers cause harm, but the victim cannot prove which injurer was negligent. To illustrate, assume that five firms discharge pollution into a lake. The socially efficient level of discharge is 10 per firm. To achieve efficiency, a lawmaker sets the legal standard at 10 for each firm. Obeying the legal standard would result in total discharge of 50. Unfortunately, the actual discharge a total of 55. The courts know that the actual discharge of 55 exceeds the legal discharge of 50, but no one can prove how much each firm discharged. The courts cannot impose liability on any firm under the standard negligence rule, because the victim cannot prove that a specific injurer caused his harm. We propose, that each polluter would be liable for the total excessive harm (5) caused by all polluters. Under this rule, each polluter will respond by discharging at the efficient level. Excess harm will disappear, pollution will fall to the efficient level (50), and none of the five firms will have to pay damages.

This solution sharply deviates from legal doctrine.²² Injurers are required under our rule to pay for harms that occur when they take insufficient care

²⁰ The Book, *supra* note 1, ch. 7.

²¹ The Book, *supra* note 1, ch. 5.

²² Perry, *supra* note 2, at 204.

as a group. This rule resembles collective punishment and its economic rationale is the same. The rule of total liability for excessive harm apparently deviates from legal doctrine and contradicts the logic of private law, which allocates costs between an injurer and a victim. What we are doing here is proposing a new public law solution to an old private law problem.

II. Administrative costs

A. In general

Ronen Perry forcefully raised the concern that few of our proposals to modify the law would increase administrative costs and make the modifications—just because of that—undesirable.²³ Ronen Avraham and Henrik Lando also raised a similar concern,²⁴ the latter focusing on administrative costs with respect to the application of one of our proposals.²⁵ We believe that administrative costs arguments should not be overstated. Experience teaches us that while administrative costs is a common argument raised by opponent of legal reforms, it is often proven to be less persuasive once the reform is adopted and put in motion. The reason is that courts are experts in handling the administrative costs concern. Let us give two examples from tort law.

Start with the comparative negligence (or fault) defense. Imagine a world—there was such a world not so long time ago—with a contributory negligence defense, allowing the wrongdoer to fully escape liability if the victim was contributorily negligent. Now imagine that someone comes with the comparative negligence idea. The administrative costs argument would immediately pop up.²⁶ It is so much easier for courts to work with a binary liability regime (liability–no-liability), than with a continuum one (20% liability, 60%, etc.). After the comparative negligence defense has been adopted across the globe, few propose restoring the old contributory negligence defense.²⁷ Why? Because courts apply the comparative negligence defense effectively, or at least courts do not report on special application difficulties. It is even not clear whether it entails more hours of litigation than applying the old defense. Indeed, courts apply it wisely: they do not try to apportion damages with mathematical accuracy (you won't find a case when a court would ascribe the victim a fault of 22% and apportion damages accordingly). And at least in the eyes of those

²³ Perry, *supra* note 2, at 223

²⁴ Avraham, *supra* note 2, at 201; Lando, *supra* note 2, at 230.

²⁵ Lando, *supra* note 2, at 233.

²⁶ For a comprehensive review of the literature concerning the impact of comparative fault on claims filed and insurance rates, see CAROL A. MUTTER, *Moving to Comparative Negligence in an Era of Tort Reform: Decisions for Tennessee*, 57 TENN. L. REV. 199, 237–45 (1990) (stating that the opponents of the change have argued that it would significantly increase litigation and raise liability insurance rates, but most researches, except two studies that were published by the same group, failed to find any strong evidence to support that claim).

²⁷ See OREN BAR-GILL & OMRI BEN-SHAHAR, *The Uneasy Case for Comparative Negligence*, 5 AM. L. & ECON. REV. 433 (2003) (arguing for the contributory negligence defense mostly on substantial grounds).

supporting the comparative negligence defense on substantive grounds, that is a major improvement comparing to the “either zero or 100%” liability regime.

The second example is proportionate liability. In many—but not all—jurisdictions courts award damages for lost chances of recovery. A doctor who negligently deprived or reduced her patient’s chances of recovery and the patient eventually did not recover, would compensate the patient even if the probability that her negligence caused the harm is less than 50%, and damages would be awarded in proportion to the probability of causation. Those who are not familiar with the proportionate liability rule would speculate that it is extremely costly to apply. In reality, however, this is not so. As with comparative negligence also with proportionate liability courts found the ways to use approximations, which are not ideal, but certainly optimal when information is costly.²⁸

Now let us see in more details whether our proposals to modify the law, that some of our commentators found to be administratively costly, are really so, and even if some of them are, how that could and should be handled by courts.

B. Reducing or not affecting administrative costs

Some of our proposals might even reduce administrative costs or at least leave them intact. Take the wrongful risk limitations which we have already discussed.²⁹ Ronen Perry raises the concern that this proposal, if adopted, would raise administrative costs.³⁰ We agree that under our rule more victims will be entitled to recover: not only those in the foreground but also those in the background. That might increase litigation (but for good reasons: those new plaintiffs should recover for their losses exactly as the other plaintiffs who are currently entitled to recover). At the same time, however, there would be less litigation around the question who is entitled to recover and for which harms. Indeed, this is certainly one of the most recurrent questions raised in negligence per se litigation.³¹ In other words, the rule we propose is clearer and more certain than the current rule, and that by itself is expected to reduce litigation costs.

C. Reducible administrative costs

Henrik Lando is concerned that our proposal for adopting a lapse defense entails prohibitively high administrative costs.³² This is a serious concern

²⁸ For courts’ approximations in applying the lost chances of recovery doctrine, see DAN B. DOBBS, *THE LAW OF TORTS*, 437 (2000).

²⁹ *Supra* text accompanying notes 11–13.

³⁰ Perry, *supra* note 2, at 224–5.

³¹ See, e.g., *Maurer v. Speedway*, 774 F.3d 1132, 1136 (7th Cir. Ind. 2014); *deJesus v. Seaboard C. L. R. Co.*, 281 So. 2d 198, 201 (Fla. 1973); *McCarthy v. Weathervane Seafoods*, 2011 U.S. Dist. LEXIS 102366 (D.N.H. Sept. 8, 2011); *Anderson v. Turton Dev.*, 225 Ga. App. 270 (1997).

³² Lando, *supra* note 2, at 233.

which should be taken into account. After all, how would a car driver who was involved in a road accident show that his level of lapses was efficient?

Our response is that today there is already the appropriate technology which enables injurers to collect evidence before injury takes place, showing that their level of lapses was not excessive, or that they took appropriate precautions to reduce it.³³ Thus, drivers could install devices on their cars—some insurance companies already encourage drivers to install them—which records their driving and indicate how cautious they are. Same thing with doctors: using cameras and other monitoring devices could provide evidence about doctors' behavior while operating on their patients or providing them with other medical treatments. Indeed, privacy concerns might limit doctors' ability to videotape all the medical treatments and procedure they administer, but there are enough ways to do it without infringing on patients' privacy (for example, avoiding the exposure of patients' faces).

But it is not just existing self-monitoring devices that matter, but also future devices. Technology might be developed to use in proving faultlessness in court. We propose a lapse defense—so it is up to injurers to decide whether they want to invest in self-monitoring to better defend themselves in trial. For those defendants who prefer to avoid collecting evidence on self-monitoring, the legal rule would not change: according to our proposal they would be liable for harms caused by their lapses.³⁴

Another argument that can be raised against our proposal for a lapse defense is that even if monitoring injurers' lapses is, or will be feasible, it would be hard for courts to determine the "reasonable," or "efficient" level of lapses to apply the defense. In particular, how courts would measure the costs of reducing one's lapses from 5 per hour to 2 per hour? This problem, of measuring non-monetary efforts, or precautions, are not unique for lapse cases. Indeed, on many occasions courts—or jurors—are required to estimate non-monetary efforts to determine whether the injurer's behavior was reasonable or not. Often they apply community standards³⁵ or use other rough estimates, thereby avoiding direct estimates of non-monetary efforts. We believe that similar practice could develop also with respect to lapses: courts and jurors would learn how to evaluate the reasonable level of lapses which society should tolerate.

³³ See TOMER TOLEDO, OREN MUSCANT & TSIPPY LOTAN, *In-vehicle data recorders for monitoring and feedback on drivers' behavior*, 16 TRANSPORTATION RESEARCH PART C: EMERGING TECHNOLOGIES. 320 (2008) (describing the abilities of an in-vehicle data recorder system, which can use the information it receives for calculating risk indices which indicate the trip overall safety, and evaluate the driving behavior. This system collects information about the vehicle acceleration, speed, location (using a GPS system), and may connect to the vehicle on-board diagnostics system in order to obtain additional engine parameters).

³⁴ Lando, *supra* note 2, at 232, argues that if information regarding some but not all dimensions of lapses can be collected, injurers would focus their efforts on the verifiable dimensions and neglect the others. While we agree that that could happen, with new technologies this concern would often be minimized.

³⁵ The Book, *supra* note 1, at 28–30.

D. Approximations

Oftentimes it is better to do something, even if in an inaccurate way, than to do nothing. We have discussed above the comparative negligence defense and proportionate liability rule and explained that even if courts apportion damages approximately, it is better than sticking to the “all or nothing” approach. The same argument applies to some of our proposals. Take the idea that if the injurer’s negligence increases and decreases risks to a victim and harm materialize, the injurer’s liability should account for the risks decreased (the Offsetting Risks rule).³⁶ Thus, if a doctor negligently preferred treatment A with expected harm of 10 (risk of harm of 1000 with probability 1%) to Treatment B with expected harm of 9 (risk of harm of 900 also with probability of 1%),³⁷ and harm of 1000 materialized, damages should be 100, rather than 1000. The reason is that damages of 100 would threaten the doctor *ex ante*, namely at the time he makes his negligent choice, with liability risk of 1, as efficiency requires (since the negligent doctor created a net risk of 1, rather than 10).³⁸

The administrative costs argument would of course pop up.³⁹ It would be much harder under our proposed rule—so the argument goes—to determine the exact amount of damages: courts would need accurate information about risks increased and decreased (in addition to information about the materialized harm, of course) to implement it.⁴⁰ But our response is simple: if such information is too costly, it is better to apply the offsetting risks rule by using approximations than not apply it at all. Thus, the law could allow courts, when offsetting risks are present, to award damages for 100, 75, 50, or 25% of the harm, depending of court’s rough estimates of the magnitudes of the risks increased and decreased.⁴¹ Accurate estimations would have been better if administrative costs were zero, but unfortunately they are not. Note, that rough estimates of risks—both increases and offsetting decreases—are necessary under current negligence law to determine whether the injurer was negligent or not. Thus, the information burden imposed on courts in applying the offsetting risks rule is not much heavier than the burden they bear when applying the current negligence rule.

Consider now our non-legal sanction argument,⁴² which has been discussed by Henrik Lando.⁴³ In brief, we argue that when courts award damages, in

³⁶ The Book, *supra* note 1, at 173–78.

³⁷ Assume that the materialization of the two risks is independent.

³⁸ This argument appears in the Book, ch. 10, § b. For developing the argument in more details, see ARIEL PORAT, *Offsetting Risks*, 106 MICH. L. REV. 243 (2007).

³⁹ See Lando, *supra* note 2, at 230.

⁴⁰ BENJAMIN SHMUELI, *Offsetting Risks in Tort Law: Theoretical and Practical Difficulties*, 37 FLA. ST. U. L. REV. 137, 183–86 (2009).

⁴¹ Cf. PORAT, *supra* note 38, at 273.

⁴² The Book, *supra* note 1, chapter 11.

⁴³ Lando, *supra* note 2, at 234–5.

certain cases, the non-legal sanctions imposed upon the wrongdoer (or breaching party) should be deducted from damages. This proposal could entail high administrative costs. Should it, therefore, be abandoned? We don't think so. First, on many occasions non-legal sanctions manifest in loss of reputation (of a merchant who opportunistically breached a contract or a doctor who committed malpractice). Then, measuring the impact of the non-legal sanctions on injurers (and breaching parties) is not different in nature from measuring reputational losses suffered by victims, a task which courts know how to handle.⁴⁴ Second, even if non-legal sanctions are hard to measure, deducting lump sums as rough estimates of the non-legal sanction imposed on the wrongdoer (or breaching party) could be much better than deducting nothing. Indeed, in both torts and contracts courts often use rough estimates when awarding damages.

Finally, consider again the injurer's self-risk argument.⁴⁵ Ronen Perry raises the concern that injurers would try to hide, or understate their self-risk to convince courts to decrease the standard of care applied to them.⁴⁶ Perry might be right, but injurers might also try to overstate their costs of care exactly for the same reason. Courts could and do handle this latter problem, and can do the same also with respect to self-risk. Furthermore, even if courts would have a hard time in evaluating self-risk, they can use presumptions and approximations. After all negligence is an objective standard and objective criteria are employed by courts in its implementation.⁴⁷ Similarly, the injurer's self-risk could be evaluated objectively and not according to its actual value in the specific case at hand.

III. Risk aversion versus incentives

Henrik Lando points out that while focusing on incentives, we have underestimated parties' risk aversion, as an important consideration which could affect the desirability of some of our proposals.⁴⁸ He illustrates his point with two of our proposals: anti insurance⁴⁹ and total liability for excessive harm.⁵⁰ Indeed, in both cases implementing our proposals magnifies risks to improve incentives.

⁴⁴ See, e.g., *PBM Prods., Inc. v. Mead Johnson & Co.*, 174 F. Supp. 2d 417, 420 (E.D. Va. 2001) (discussing ways of measuring plaintiff's reputational losses); *ALPO Petfoods, Inc. v. Ralston Purina Co.*, 913 F.2d 958, 969 (D.C. Cir. 1990) (same); see also DOBBS, *supra* note 28, at 1189–95 (presenting various factors that guide the court in assessing reputational losses).

⁴⁵ *Supra* text accompanying notes 5–10.

⁴⁶ Perry, *supra* note 2, at 223–4.

⁴⁷ But see OMRI BEN SHAHAR & ARIEL PORAT, *Personalizing Negligence Law*, 91 NYU L. Rev. (forthcoming 2016).

⁴⁸ See also Perry, *supra* note 2, at 214–5.

⁴⁹ *Supra* text following note 20.

⁵⁰ *Supra* text following note 21.

Providing efficient incentives to actors and reducing their risks, is not always in tension. Reducing risks is often done through insurance. When the injurer is insured, he might be subject to moral hazard, refraining from taking cost-justified precautions. But at the same time, as long as insurance premiums are sensitive to precautions taken by injurers, insurance conveys information to injurers as to the effectiveness of their precautions, and more importantly, provides them with incentives to take such precautions. Thus, reducing injurers' risks through insurance often supports the goal of improving their incentives

But sometimes efficient incentives and reducing actors' risks are in tension, as Lando correctly indicates. Take anti-insurance first. The main point of anti-insurance is the tradeoff between those two variables. Sometimes providing better incentives comes at the expense of exposing a party to higher risk. Under contract law, the victim is fully compensated (although it is often less than full compensation). Her risk is zero: she would be at the same position with or without a breach. That, however, impairs the victim's incentives to efficiently cooperate or reduce reliance. One way to mitigate the victim's incentive problem is to expose her to higher risk. Anti-insurance does exactly this.

We point out, in discussing the anti-insurance, that attitude toward risks is a central consideration of whether to use anti-insurance or not, acknowledging the tradeoff between incentives and risk reduction.⁵¹ Indeed, it is not a coincidence that in all our examples for implementing anti-insurance, harm is not high, and risk aversion therefore plays a minor role. In other cases, risk aversion precludes the usage of anti-insurance and we acknowledge it in our book.⁵²

Next, consider total liability for excessive harm. According to our proposal, all injurers who could be the cause of the harm would bear liability for the difference between actual total harm and optimal total harm.⁵³ Some injurers might be required to pay for harms caused by others, and that might magnify their risks in engaging in their activity.⁵⁴ Indeed, in equilibrium, as we explain in details in our book, all injurers take efficient precautions and liability is nil. But we agree—and also acknowledge it in our book—that on the way to equilibrium, injurers might bear harms not caused by them.

What can be said about it? *First*, we emphasize in the book that total liability for excessive harm should be limited to cases where the number of injurers is small.⁵⁵ That would put some limits on each injurer's liability. *Second*, our proposal is mostly applicable to harms caused by firms, such as large polluters.

⁵¹ The Book, *supra* note 1, at 112.

⁵² The Book, *id.*

⁵³ See discussion in the text following note 21.

⁵⁴ Perry, *supra* note 2, at 211–3, also makes this point.

⁵⁵ The Book, *supra* note 1, at 75.

In such cases risk aversion is less of an issue. *Third*, in most cases, injurer's liability for excessive harm even when not nil, is expected to be lower—much lower—than the full harm caused by the injurer.⁵⁶ *Forth*, and most importantly: in most of the cases for which our proposal was designed, the law provides almost no incentives to injurers to reduce severe harms—including to people's life and limbs—because the wrongdoer cannot be identified. In such cases providing incentives are of utmost importance, even if at the expense of magnifying risks to injurers.

In sum, actors' risk reduction is an important consideration, which sometimes, but not always, trades off with incentives. We agree with Lando that this tradeoff should be taken seriously before modifying the law.

IV. Conclusion

Many of the arguments raised by our commentators remained unanswered. We have tried to respond only to those arguments with large implications beyond the immediate context of our book. We have not responded to the argument raised by Ronen Perry, that our proposals, before adopting them, should be considered also through the lens of behavioral law and economics. It is indeed true that our book offers a rational, rather than a behavioral analysis of private law. But is it different from what courts do in developing private law through their decisions? We suspect they don't, at least not explicitly. Maybe this observation affected our analysis as well.

⁵⁶ The Book, *supra* note 1, at 88.