Contracting for Torts

J. Shahar Dillbary

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CONTRACTING FOR TORTS

J. Shahar Dillbary*

ABSTRACT

This article focuses on agreements to commit or induce the commission of a tort. Examples include an agreement between factories to use a production process that would pollute a lake, or an agreement where one entices another to publish a false statement by promising to share the cost of the injury. Such agreements are unenforceable under contract law. However, the article reveals that tort law not only enforces such wrongdoings, it encourages them. Tort law picks up where contract law leaves off. Tort law allows the injurers who acted on the agreement (the polluting factories and the publisher) to recover expectation damages from the breaching party who behaved carefully (the factory that promised to use a polluting process but did not pollute). It also requires the party who commissioned a wrong (the one who enticed the publisher) and then refused to shoulder the cost of the victim’s injury to pay her share as promised. Tort law even goes a step further and facilitates “tort-tracting”—the act of agreeing, or pre-committing, to engage in or sponsor a wrongdoing. The result is ironic: tort law invites, polices and enforces wrongdoing. The article explains how tort law allows parties to enter into agreements to commit or induce a tort, and how they are enforced. In doing so, the article sheds a new light on some of the most divisive controversies that have preoccupied scholars and paved their way into the Restatements of Torts, and it provides guidance to courts and policymakers.

Keywords: Tort, Contract, Tort-tract, Misrepresentations, Actual Causation, Concerted Action, Concurrent Causes, Alternative Liability, But-for, Substantial Factor, NESS, Externalities, Efficiency, Deterrence, Tortfest.

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I. INTRODUCTION

In many cases actors will not participate in a tortious activity unless others agree (or otherwise pre-commit) to join the activity, or sponsor its operation. Contract law refuses to respect such agreements. It treats “a promise to commit a tort or to induce the commission of a tort” as “unenforceable.”1 This article reveals that tort law gives what contract law takes away: it encourages the formation of and effectively enforces contracts to commit torts. Tort law allows a party who acted on the agreement and harmed another to recover from the non-injuring party who breached her promise and behaved carefully or refused to pay her share. In other words, tort law requires careful actors to pay expectation

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1 Restatement (Second) of Contracts § 192 (Am. Law Inst. 1981); ld. at cmt. b. (explaining that a promise to share the cost of a tortious act that “may tend to induce the commission of the act... is unenforceable for the same reason as is a promise to commit a tort”—it is against public policy); Restatement (Second) of Contracts § 178 (Am. Law Inst. 1981) (“[W]hen an agreement involves a serious crime or tort, that unenforceability is plain”); Restatement (Second) of Contracts § 8 (Am. Law Inst. 1981) (explaining that “[a]n unenforceable contract is one for the breach of which neither the remedy of damages nor the remedy of specific performance is available.”); Fisher v. Halliburton, 696 F. Supp. 2d 710, 716 (S.D. Tex. 2010), vacated, appeal dismissed (on other grounds), 667 F.3d 602 (5th Cir. 2012) (“It is axiomatic that one may not contract to commit a tort.”).
Consideration, (iii) that courts infer or impose based on tort concepts such as reliance (iv) after Gilbert to refer to (i) illusory contracts that hold both D1 and D2 liable.

To see this, consider the following example (based on illustrations from the Restatements (First) and (Second) of Contracts):

**Example 1: Defamation.** D1 and D2 have a feud with their neighbor, P. D1 asks D2, who owns a newspaper, to publish a statement about P known to both to be false and defamatory. D1 also promises D2 to share P’s damages—estimated at $100. For separate reasons, each values harming P at $60 (measured by each party’s willingness and ability to pay).

First, note that D1’s promise to share P’s damages is necessary to induce D2 to commit a tort. Indeed, without such a promise D2 can expect only a loss ($60). An enforceable agreement to share P’s damages would make the tortious behavior worthwhile for both D1 and D2. For example, an agreement to share P’s damages in equal shares would promise each $10 (60-100/2). But even if the parties reach such an agreement, courts would likely find it against public policy and unenforceable. This means that if after the defamatory statement is published D1 refuses to share P’s damages, courts will not require her to do so. Knowing this, D2 will not publish the defamatory statement to begin with.

Tort law is not indifferent to contract law’s fastidious taste (actually distaste) for tortious activities. It offers mechanisms that allow courts to save face (they can still condemn the tortious activity and agreements to behave carelessly), and at the same time, permit the impermissible. Tort law does so by offering a default arrangement akin to a standardized agreement that the parties can adopt—a tort-tract. If the parties enter into a tort-tract, tort law will enforce its

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2 As used in this article, the term “irony” is not intended to pass judgment or express disapproval. Rather, it is used to highlight a “striking reversal of what is expected”—that is, to note an incongruity between the actual result of a sequence of events and the normal or expected result.” See Merriam Webster’s definition (available at [https://www.merriam-webster.com/dictionary/irony](https://www.merriam-webster.com/dictionary/irony)) (distinguishing between Socratic, Dramatic and Situational uses of the term).

3 The example is based on the Restatement (First) of Contracts § 571 (Am. Law. Inst. 1932) illus. 1; Restatement (Second) of Contracts § 178 cmt. d, illus. 7 (explaining that a promise to share a judgment in order to induce another to commit a tort is unenforceable) and the Restatement (Second) of Contracts § 192 cmt. b, illus. 5.

4 Ignoring, for a moment, the impact of tort law and theories like concerted action, which would hold both D1 and D2 liable.

5 See supra notes 1 and 3; Restatement (Second) of Contracts § 8 intro. note.

6 Tort-tracts should not be confused with con-torts. The term “con-tort” was first used by Grant Gilbert to refer to (i) illusory contracts that (ii) lack any manifested assent or exchange of consideration, (iii) that courts infer or impose based on tort concepts such as reliance (iv) after some event occurred (v) to avoid injustice. Grant Gilmore, The Death of Contract 73-98.
terms against a reneging party. In other words, a tort-tract is an actual contract or commitment to engage in wrongdoing\textsuperscript{7} enforced by tort law.

This is illustrated in Example 1. On its face, entering into an agreement to commit a wrong seems futile. What is the point in D1 making a promise that is not enforceable and on which D2 cannot rely? The reason is that tort law enforces this promise. By entering into an agreement to commit a tort, D1 and D2 entered into a tort-tract. The agreement itself triggers a set of default tort rules that, in effect, fill some of the gap created by contract law. Here, the agreement triggers tort law’s concerted action doctrine. The doctrine holds liable not only the injurer (e.g., the publisher), but also those who encourage the injurer (e.g., D1, who promised to share P’s damages).\textsuperscript{8} The result is a tort-tract to share the cost of the tortious activity. In Example 1, the terms of the tort-tract are simple. If D1 and D2 agree to commit or facilitate a tort, both will share the cost of the victim’s injury as joint-tortfeasors. The sharing (or apportionment) is made according to another predetermined known rule (e.g., joint and several liability with contribution). The result is that the parties reach an actual agreement that tort law (but not contract law) respects and enforces. With tort law on her side, D2 does not need to trust D1 or rely on contract law. If D1 reneges and refuses to share the cost of the injury, tort law will force her to do so.\textsuperscript{9} It will require D1, who did not harm the victim, to share the cost of the tortious act she promised to sponsor. And knowing this, D2 can expect that her liability will be sufficiently diluted (from $100 to $50) to make the activity worthwhile (60>100/2).\textsuperscript{10}

In Example 1, once D2 publishes the false statement, D1 could not act strategically to avoid her obligation to share the cost of P’s harm. The reason is

\textsuperscript{7} As with the term “irony”, this article uses the terms “wrongdoing,” a “wrong” and wrongdoers interchangeably with the terms tortious, tort and tortfeasors to refers to behaviors (or those who engage in behaviors) that give rise to liability, as opposed to denoting an evil or immoral act. Thus, in Example 1, D1 and D2 are “wrongdoers” who engage in “wrongdoing” because they knowingly publish a false statement—a behavior for which the law assigns liability.

\textsuperscript{8} W. Page Keeton et al., Prosser and Keeton on the Law of Torts § 46, at 323 (5th ed. 1984).

\textsuperscript{9} D1 may still be able to escape her obligation if, for example, she is insolvent, but this is a risk that D2 assumed when she decided to enter into an agreement with D1.

\textsuperscript{10} Ex-ante each actor should assume that liability would be shared equally between all tortfeasors regardless of how, after the injury materialized, the jury apportions damages between the parties. See infra Part IV.6.; J. Shahar Dillbary, Apportioning Liability Behind a Veil of Ignorance, 62 Hastings L. J. 1729 (2011) (hereinafter “Apportioning Liability”).
that upon performance (publication), D1 and D2 instantaneously became joint- 
tortfeasors who are required to share the cost of the harm. Sometimes, however, 
the nature of the activity is such that a party may have an opportunity to renge 
even after the tortious activity started. This can happen, for example, in an 
agreement to drag race, where each party must continuously engage in the tortious 
activity. Example 2 below illustrates this point. It is based on the Restatement 
(Second) of Torts and is a variant of Example 1.11

**Example 2: Drag Race.** Two strangers, D1 and D2, stop at a red light. 
They consider whether to engage in a drag race. Each values racing at $60. 
If one or both parties drive carelessly the expected harm is $100.12

As with Example 1, neither would race (60<100) unless the parties agree 
to share the cost of the harm (60>100/2). And as before, contract law would not 
enforce the agreement. Yet, tort law would. The agreement to engage in a wrong 
would trigger a number of tort rules, including concerted action. The doctrine 
allows courts to hold both drivers liable so long as they were pursuing a common 
enterprise—here, literally pursuing (i.e., racing) each other. Thus, if the parties 
can see each other racing, they can be sure that in case of an accident both would 
be held liable and share the cost of an injury.

But what if the drivers cannot see each other? Each driver would be 
concerned that the other driver had abandoned the race. In such a case, with no 
partner to a common plan, a driver who keeps racing knows that if she injures 
another she alone will be liable for the entire harm, and can therefore only expect 
a loss (60<100). The result is a dilemma. Each driver prefers racing if the other 
driver does the same, but prefers abandoning the race otherwise.13 This article 
shows that tort law solves the Driver’s Dilemma in favor of participating in the 
race. Tort law does so by assuring each party that the non-injuring driver who, in 
breach of her promise, abandoned the race, or drove carefully will nevertheless be

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11 Intentional torts may give rise to punitive damages, which may serve as an effective anti-
dilution mechanism, but only if they are set at a high enough level See infra Part IV.2; J. Shahar 
Dillibary, Tortfest, 80 U. CHIC. L. REV 953, 978 (2013). Moreover, for the reasons explained in 
Part III and Part IV.2 infra, those interested in curtailing torttracts may want to adjust punitive 
damages upwards with the number of tortfeasors.

12 RESTATEMENT (SECOND) OF TORTS § 876 cmt. A, illus 2 (AM. LAW. INST. 1979) (explaining 
that even if only one of the drivers hit the victim, both will be held liable). Note that the same 
dynamic that occur in Example 1 (i.e., asynchronous actions resulting in reduced opportunity to 
renge) may also occur in drag races. For example, when prior to the race a party marks the finish 
line or announces the start of the race that party will be liable in case of an injury. In both cases, 
the acts of the participants are asynchronous. The enticing actions of non-publishing neighbor in 
Example 1 and the one who signal the beginning (or ending) of the race are followed by someone 
else’s performance (i.e., the publisher and drivers). See e.g., Hood v. Evans, 126 S.E.2d 898, 900 
(Ga. Ct. App. 1962) (holding liable a non-driver who had signaled the start of the race); Sparks v. 
Alabama Power Co., 679 So. 2d 678, 679 (Ala. 1996) (holding liable a party who prior to the race 
“drove his truck down the road to mark the finish line.”).

13 See infra notes 25-30 and accompanying text (describing the Driver’s Dilemma in details).
held liable. The result is that, ex-ante, each driver can expect a benefit (60>100/2), and a careless race will take place even if the parties cannot observe each other. Here, tort law incentivizes the parties to engage in a tortious activity. Once again, the parties do not need to trust each other or rely on contract law. Tort law protects the parties’ (tort-tractual) expectations.

The rest of the article proceeds as follows. Part II uses concerted action theory as a case study to present the basic theory. It shows that although contract law does not enforce agreements to engage in tortious activities, tort law provides an alternative. Instead of contracting, the parties can tort-tract. They can adopt the default arrangement that tort law offers. Tort-tracting—that is, adopting tort law’s arrangement—can be done easily and at a very low cost. Moreover, tort law provides an effective enforcement mechanism. It promises a gain to the injurer (e.g., the publisher of the false statement) who acted on the agreement. In contrast, those who promised to partake in the activity or share its cost and reneged are required to pay expectation damages. By offering and enforcing such arrangements, tort law encourages parties to engage in group-wrongdoing.

Part III focuses on cases where parties cannot negotiate. It shows that in these cases, the parties can pre-commit in a different way. Each party can unilaterally signal her interest in the tortious activity. Tort law makes such signals and commitments credible. It does so by requiring those who misrepresented their intention to engage in the tort-tract or share its cost to pay expectation damages to the injurer who relied on the representation. Moreover, Part III reveals that tort law allows parties to “test the ground” by way of sampling to see if other actors would join the tortious activities. If an insufficient number of actors join, tort law exempts from liability the party who engaged in sampling, but then decided to cease the activity. In deviation from prior literature and the Restatements, this article explains why those who engaged in sampling and contributed to the victim’s harm should be exempted from liability even if their actions were a but-for cause of the harm. Part IV discusses possible concerns and objections, the impact of insolvency, punitive damages and the criminal system as well as the model’s assumptions. Part V provides concluding remarks.

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14 Lemons v. Kelly, 239 Or. 354, 360 (Or. 1964) (holding that one who participates in a race cannot withdraw unless he notifies the other party at a time when that party can still avoid injuring another). See also infra notes 27-30 and accompanying text.

15 Expectation damages are usually different than compensatory damages in that they also include loss of profits. This article focuses on a set of cases where the two types of damages coincide. This overlap occurs because in the cases discussed, each party benefits directly from the activity; however, the breaching party refuses to share the cost of the harm. In such cases, expectation damages (requiring the party to share the cost of the injury as she promised) are identical to compensatory damages (sharing the damage to the victim).
II. AGREEMENTS (AS CREDIBLE COMMITMENTS) TO ACT TORTIOUSLY

A. Cost-Sharing Agreements and Their Enforcement

One tort doctrine that is explicitly designed to effectuate and execute tort-tracts is concerted action. The concerted action doctrine allows courts to impose liability not only on the party who physically injured the victim, but also on non-injuring parties who either agreed or pre-committed to engage in the tortious activity. Courts and scholars often speak of actors pursuing a common “plan,” “purpose,” “design,” or “enterprise.”16 The most accepted and oft-cited description is that of Prosser and Keeton. According to the acclaimed authors, liability is imposed on “[a]ll those who, in pursuance of a common plan or design to commit a tortious act, actively take part in it, or further it by cooperation or request, or . . . lend aid or encouragement to the wrongdoers, or ratify and adopt the wrongdoer’s acts done for their benefit.”17

The stated goal of the doctrine is to “express [] moral condemnation for the actions of all of the defendants”18 and “to deter anti-social behavior.”19 The irony is that concerted action does the opposite. As Examples 1 and 2 demonstrate, concerted action may be the very reason the victim is injured. Indeed, in these examples, but-for the doctrine, the tortious activity would not take place, and the victim would not be harmed. This and other tort doctrines encourage the parties to behave tortiously. Together, they serve as gap-fillers or default arrangements in the tort-tract adopted by the parties. Some of the aspects and functions of these boilerplate features are discussed below.

1. Cost-Sharing Commitments. A group causation theory like concerted action comes with a default cost-sharing arrangement. By simply committing to engage in a tort, the parties, in effect, promise to share the cost of the harm. To see why, reconsider the drivers in Example 2. There, two strangers meet at a red light. Each is interested in racing, but neither will take the time to negotiate a thorough agreement or a cost-sharing provision; nor do they need to. Tort law provides them with an alternative. Instead of contracting over the specifics of a tort, they can tort-tract. Under tort law’s default arrangement, all the parties need to do is to simply enter into an agreement to race. Because their agreement will trigger concerted action theory, both will be held liable for—that is, both will share—the entire harm, regardless of whether one or both of them injure the victim. The cost-sharing feature encourages the parties to engage in the tortious

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16 Keeton et al., supra note 8, § 46 at 322-23.
17 Id. at 323; RESTATEMENT (SECOND) OF TORTS § 876 (AM. LAW INST. 1979).
behavior. In some cases, but-for the cost-sharing arrangement, the tortious activity would not take place (as Example 2 illustrates). In other cases, the cost-sharing arrangement entices the parties to behave tortiously by promising to increase their expected profits. Of course, a default sharing provision must also be enforceable. This is the subject of the next feature of the tort-tract.

2. **Enforcement and Expectation Damages.** Tort law allows the non-breaching wrongdoer who performed and injured another to recover expectation damages from those who promised to partake or finance the tortious activity and then recoiled. This means that in Example 2, if D1 hit the victim but D2 did not, D1 would have recourse against D2. Bierczynski v. Rogers illustrates tort law’s enforcement function. Bierczynski and Race were driving side-by-side at excessive speeds while each was attempting to block the other from passing. Race did not stop in time, and hit the plaintiffs’ vehicle. Bierczynski was more successful, and was able to stop thirty-five feet from the area of impact. Despite the absence of an explicit or verbal agreement, the court inferred that the parties agreed to race and held both liable. Bierczynski appealed, but Race did not. In fact, Race—the injurer—joined the plaintiffs’ request to uphold the judgment against both. This turn of events is hardly surprising. Race—the injuring party—(successfully) attempted to enforce a tort-tractual obligation. His goal was to enforce a promise that his liability will be diluted—a promise Bierczynski was willing to make before the accident, but refused to honor thereafter. By holding both liable (as Race requested), tort law enforced a cost-sharing provision Bierczynski and Race adopted when they agreed to race.

3. **Curbing Strategic Behaviors.** In Bierczynski, the parties were driving in plain view of one another. They could thus be sure that in case of an injury, concerted action would apply and both would share the cost of the victim’s harm. But suppose that after the race started the parties could no longer see each other. Each driver would be concerned that if she harmed another, the non-injuring driver would be able to escape liability. This could happen if the non-injuring driver abandoned the race before the injury occurred. In such a case, the non-injuring driver can argue that concerted action theory does not apply because at the time of the injury, the parties “were not pursuing a common plan.”

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20 For example, suppose that in Example 2 each driver values a speedy careless ride at $130. Each driver would drive carelessly for an expected gain of $30 (130-100). If, however, instead of a speedy ride the two drivers agree to race, each can expect $80 (130-100/2)—more than double the gain. See also supra Section II.B.2.

21 Bierczynski v. Rogers, 239 A.2d 218 (Del. 1968).

22 Id. at 219.

23 Id. at 220.


25 See supra notes 16-17 and accompanying text. The concern is real. In fact, in many racing cases the non-injuring driver argues that she abandoned the race before the other driver injured the
Drivers’ Dilemma is illustrated in Example 2 (summarized in Table 1 below). There, each prefers to keep racing if the other one does the same for a benefit of $10 (60-100/2), but to abandon the race otherwise (-40=60-100). Game theory teaches that, without a clear strategy, the parties may avoid racing altogether or abandon the race the moment they lose sight of each other.

<table>
<thead>
<tr>
<th>D1</th>
<th>D2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abandon the Race</td>
<td>Race</td>
</tr>
<tr>
<td>Abandon the Race</td>
<td>F1  F2 0 0</td>
</tr>
<tr>
<td>Race</td>
<td>F1  F2 -40 0</td>
</tr>
</tbody>
</table>

Table 1: The Drivers’ Dilemma

An enforceable commitment to race and keep racing until the finish line, or to share the cost of the injury even if one abandons the race, can solve the dilemma. And this is what tort law ensures the parties do. *Saisa v. Lilja* is an example of such a case. In *Saisa*, the defendant argued that although he raced with the injurer, he should not have been held liable because “he had abandoned the race some time before [the accident],” and that he “was not in the vicinity of the accident at the time when it occurred.” The appellate court rejected the argument. It held that a person who pre-commits to share the cost of an injury, either explicitly so or by agreeing to join the tortious activity, would be held to his promise. The holding assures the injuring driver who “did not know that defendant had withdrawn and supposed that the race was still on . . . [that] the defendant would be liable . . . .” In *Lemons v. Kelly*, another drag-race decision, the court left no place for a doubt: “[O]ne who participates in setting hazardous conduct [like a drag race] in motion cannot later be heard to say: ‘Oh! I withdrew before harm resulted even though no one else was aware of my withdrawal.’”

The result is puzzling. Why does tort law hold liable those who behaved carefully at the time of the injury (e.g., the defendants in *Saisa* and *Lemons*)? Should not the withdrawing party be praised and rewarded for abandoning what is victim, that for this very reason concerted action cannot apply, and that therefore, only the injuring driver should be held liable. See e.g., infra notes 27 and 30.

26 If both parties are in pursuit of each other, they will be considered parties to a common plan, concerted action will apply, and both will be held liable. In such a case, each can expect to pay $50 (100/2), and thus gain $10 (60-50). If one party races and the other does not (e.g., because she decided to abandon the race without notice), the injurer can expect to lose $40 (60-100).

27 Saisa v. Lilja, 76 F.2d 380 (1st Cir. 1935).
28 Id. at 381.
29 Id. at 381 (affirming the District Judge’s jury instructions).
30 Lemons v. Kelly, 239 Or. 354, 360 (Or. 1964).
clearly an illegal and tortious activity?\textsuperscript{31} The reason is tort law’s effort to protect the \textit{injurer’s expectations}. In \textit{Saisa} and \textit{Lemons}, it was the non-injuring party’s commitment to participate in the race that allowed the injuring driver to expect a diluted liability (100/2 instead of 100) and enticed her to engage in the race in the first place (60>50). Even after the race has started, a party may abandon so long as she provides a proper notice. The notified driver may decide to keep driving carelessly, but she cannot rely on others to share the cost of an injury. Abandoning the race without notifying the other driver, however, is a breach of the commitment to share. This tort law would not accept. The remedy, provided by tort law, is to hold the non-injuring party to her promise—that is, to require her to share with the injurer the burden of the victim’s injury.

The tort remedy turns the dilemma into a clear strategy to stay in the race. The party who remains in the race can expect a gain (60-100/2). The abandoning party can only expect a loss (0-100/2).\textsuperscript{32} The result is that although the parties may not be able to trust each other (they are strangers) or rely on contract law (the agreement is not enforceable), they can trust tort law to be on their side.\textsuperscript{33} Accordingly, a tortious race will take place.

4. \textit{Guidance to Tort-tractors}. Tort law even provides guidance to tort-tractors. It counsels them on how to commit the perfect tort. If this sounds dubious, consider the following illustration provided by the Restatement (Second) of Torts:

“A and B are members of a hunting party. Each of them in the \textit{presence} of the other shoots across a public road at an animal, which is negligent toward persons on the road. A hits the animal. B’s bullet strikes C, a traveler on the road. A is subject to liability to C.”\textsuperscript{34}

\textsuperscript{31} The holding is even more puzzling when it becomes clear that, in some cases, if the parties knew that only the injurer would be held liable, the tort would not take place at all. For instance, in Example 1 (defamation) the only reason that D2, the owner of the newspaper, published the defamatory statement was because she could count on tort law to hold D1, the non-injuring party, liable as well. If tort law imposed liability only on the injurer (or if it imposed high enough punitive damages), D2 would have refused to engage in the tortious activity (60<100). An analogy to Example 1 would be a case where Example 2 involved a driver and a passenger or a driver and a spectator. In such a case, if the driver—the only potential injurer—knows that she will be the only one liable, she will not engage in the tortious activity (60<100). In contrast, in Example 2 (a drag race with two drivers) even if tort law imposed liability only on the injuring driver, each can still expect a $10 gain, assuming that at the beginning of the race there is an equal probability that one of them will harm the victim. In such a case, each driver knows that, everything else being equal, she has a 50% chance to be the injurer. Accordingly, she can expect to pay $50 (50%\times100) and gain $10 (60-50).

\textsuperscript{32} The abandoning party does not gain anything from the tortious activity (the gain comes from the careless driving) and can therefore only expect to share the injury, for an expected loss of $100/2.

\textsuperscript{33} See also supra note 10 and infra Section II.B.2 (explaining how tort law incentivizes a large number of actors to join the tort-tract).

\textsuperscript{34} \textit{Restatement (Second)} § 876 cmt. d, illus. 2 (explaining that in a drag race, the parties will be clearly viewed as parties to a common plan if just before the accident “the two cars [were] abreast and both [were] travelling at dangerous speed). The first element—“driving abreast”—assures
The problem faced by A and B is the same as the one faced by the drivers in Example 2. Each is worried that the other party would renege on her commitment and abandon the tortious activity before the accident occurs. And, without a partner to a common plan, each is concerned that if she hits the victim she alone would be liable for the entire harm. The difference is that in Example 2 tort law curbs the strategic behavior by adopting a rule that requires the reneging party to provide a proper notice. In contrast, in the hunting scenario, tort law—more accurately, drafters of the Restatement: tort professors and judges—advise the parties on how to take self-help measures to avoid that problem. They promise the wrongdoers that if each of them shoots in the presence of the other—both will share liability (because both can still be considered parties to a common plan). With this “pre-ruling” all the parties need to do is simply follow the advice of the experts in the field. The victim may find some consolation in the fact that she will be able to recover damages.

B. Tort-tracting

Tort law does more than offer tort-tracts, enforce their terms, and curb the parties’ attempts to escape their obligations. Tort law also facilitates tort-tracting—the initial act of agreeing or pre-committing to engage in wrongdoing or sharing in the cost of an injury that may occur therefrom. Tort law does so in two important ways. First, it reduces the parties’ transaction costs. The parties do not need to enter into long negotiations, draft, and enter into a detailed agreement that would regulate the parties’ behavior. Instead, tort law offers a menu of default opt-in and opt-out procedures, cost-sharing and apportionment mechanisms, and even cross-claim waivers between participants. Tort law even allows parties to quickly and inexpensively agree on the desired precaution and activity levels. Second, tort law incentivizes actors to join the tort-tract by promising them higher gains that may increase with the number of parties.

1. Opting-in. Tort law allows actors to opt-in and adopt the default contract proposed by tort law by inexpensive means. The parties do not need to hire a lawyer or sign a contract. By simply agreeing to commit or sponsor a tort, the parties adopt a default cost-sharing provision. And to do that—a wink of an eye or a gesture will suffice. In fact, the agreement to engage in a tort does not

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35 See supra notes 7, 20-21 and accompanying text.
36 See also RESTATEMENT (SECOND) § 876 cmt. d, illus. 6 (emphasis added).
37 By analogy to Examples 1 and 2, if each hunter values the activity at $60 and the expected harm is $100, both will engage in the activity. If they follow the Restatement (Second)’s advice, each can expect a gain (60-100/2>0).
38 See e.g., Mein ex rel. Mein v. Cook, 193 P.3d 790, 792, 794 (Ct. App. 2008) (“revving their engines and bantering back and forth” was “sufficient to support a finding that [the two
even have to be explicit. As Bierczynski illustrates, an agreement to race can be inferred from the parties’ behavior (e.g., speeding side-by-side).\textsuperscript{39} Similarly, a spectator to a drag race can “sign on” to a tort-tract by simply waiving her hands in agreement.\textsuperscript{40} And in cases of a driver and a passenger, all that is needed is for the passenger to not object to the driver’s careless behavior, in which case courts conclude that the passenger acquiesces to the tortious behavior and thereby becomes a party to the tort-tract.\textsuperscript{41}

2. Incentivizing a Large Number of Parties to Join the Tort-tract. In the above examples the tortious activities (publishing a false statement and drag racing) involved only two parties. In many cases, however, the cost of negotiating with multiple parties can be very high, and it likely increases with the number of actors. Jones v. Reynolds, for example, involved a drag race between two drivers with 150-300 spectators.\textsuperscript{42} In Kover v. Bremer, 26 defendants were accused of conspiring to publish defamatory statements about their ordained minister.\textsuperscript{43} And in Gosden v. Louis, 17 residents signed on a defamatory statement accusing the plaintiff of unlawful misconduct.\textsuperscript{44}

Tort law incentivizes a large number of parties to join the tort-tract in two ways. First, it ensures that the initial cost of joining a tort-tract remains low.\textsuperscript{45} Second, under certain conditions, tort law promises the benefits of each party would increase as more actors join the tort-tract.\textsuperscript{46} In these cases, the more actors

\textsuperscript{39} Bierczynski v. Rogers, 239 A.2d 218, 221 (Del. 1968). See also supra note 34.

\textsuperscript{40} See e.g., Hood v. Evans, 126 S.E.2d 898 (Ga. Ct. App. 1962) (imposing liability to a non-driver who had signaled the start of the race).

\textsuperscript{41} See e.g., Boykin v. Bennett, 118 S.E.2d 12, 17 (N.C. 1961) (“[If] the injured passenger had knowledge of the race and acquiesced in it, he cannot recover” but “[a] participant who abandons the race, to the knowledge of the other participants, before the accident and injury, may not be held liable”); Hathaway v. Eastman, 968 N.Y.S.2d 841, 845 (N.Y. Sup. Ct. 2013), aff’d, 996 N.Y.S.2d 382 (N.Y. App. Div. 2014) (a passenger who “knowingly and willingly participated” in a drag race is precluded from injuries sustained in the accident”); Sloan v. Fauque, 784 P.2d 895, 896 (Mont. 1989) (holding liable a passenger who voluntarily and knowingly joined the race despite the passenger’s silence).

\textsuperscript{42} Jones v. Reynolds, 438 F.3d 685, 688 (6th Cir. 2006).


\textsuperscript{44} Gosden v. Louis, 687 N.E.2d 481 (Ohio 1996); See also Miles v. Perry, 11 Conn. App. 584 (1987) (holding six defendants liable for conspiring to defame the plaintiff).

\textsuperscript{45} A bystander can opt-in to a drag race by simply waiving her hands, and those who would like to sponsor the publisher only need to agree or support the publisher. The agreement can be explicit—as in Gosden v. Louis, 687 N.E.2d 481 (Ohio 1996), where each of the defendants added their signature to the defamatory letter—or it can be implicit by way of support or encouragement. See Coffey v. MacKay, 277 N.E.2d 748, 752 (Ill. App. Ct. 1972) (relying on Kovar for the proposition that “allegations of a conspiracy…plus overt actions by [some of the defendants] are sufficient to state a cause of action for a conspiracy. . . through libel and slander”).

\textsuperscript{46} See Dillbary supra note 11, at 958 (defining a tortfest as a case where dilution of the parties’ liability can not only reduce their incentives to take care, but may also “incentivize actors to join others in committing a wrongdoing.”).
join the tortious activity the more profitable and more enticing it becomes. To illustrate this, consider a race with two drivers and a spectator who cannot verbally communicate with the drivers, but can initially see and be seen by them. Perhaps, the spectator is located on the other side of a highway or at a distant high point.

**Example 2A: A Drag Race with Two Drivers and a Spectator.** Each of the three actors, two drivers and a spectator, benefits $60 from the careless activity. If one or both drivers drive carelessly, the expected harm to the victim is $150.

Here, each can expect to gain $10 (60-150/3>0), but only if *all*—the two drivers and the spectator—share the cost of the accident. If others joined the group, the imposition of liability on all would serve as an additional encouragement. For example, with six actors (e.g., two drivers and four spectators) each can expect to gain $35 (60-150/6); and with fifteen actors (e.g., two drivers and thirteen spectators), the individual gain will quintuple to $50 (60-150/15). The result is that by holding all parties liable, tort law promises that the gain for each will increase as more tortfeasors join the activity. And to opt-in, all that a spectator needs to do is simply raise a hand with approval.

3. **Care Levels.** Tort law also protects the parties ex-ante expectations with regard to the agreed upon levels of care. Tort law does so by punishing the party who deviates from the tort-tract. To illustrate this, recall Example 2, but suppose now that the drivers must choose between different levels of care.

**Example 2B: A Drag Race with Varying Levels of Care.** Two strangers, D1 and D2, stop at a red light. They consider whether to engage in a drag race, which each values at $60. If the parties, or one of them, drive carelessly by way of speeding, the expected harm is $100. A driver can slow down and avoid harming, but this would reduce her chances to win and her expected benefit would drop to $5 (i.e., slowing down comes at a cost of $55). A reckless bypass in a no-pass zone increases the expected harm to $200.

Here, each actor has four options: (a) avoid the race; (b) race with care and expect a gain of $5 (60-55); (c) race carelessly for an expected gain of $10 (60-100/2) if the other driver does the same, or for a $40 (60-100) loss if the other driver does not; or (d) race recklessly and suffer a loss regardless of the other’s actions.\(^{47}\) Note that the first option (no race) and the last one (reckless driving) are inferior strategies. The first comes with no gain and the latter promises a loss. The parties’ only decision is, therefore, whether to drive carefully for a sure profit of

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\(^{47}\) If both parties share the cost of the reckless behavior each can expect to lose $40 (60-200/2). If one driver is liable she can expect to lose $140 (60-200). The term “recklessly,” as used here, denotes a substantial deviation from due care.
$5; or drive carelessly and either double the gain (if both drive carelessly) or risk a loss.

Once again, tort law solves the dilemma in favor of incentivizing the parties to behave tortiously. Tort law does so by disciplining those who deviate from the agreed-upon level of care. If two parties agreed to race carelessly, it will hold liable the injurer as well as the party who, in breach of her promise, decided to drive carefully. Similarly, the driver who violates the tort-tract by driving recklessly will be held *solely* liable for the entire harm inflicted by her behavior.49

The result is that the non-breaching party (i.e., the one who drives carelessly) can expect that her liability will be sufficiently diluted to make the tortious activity worthwhile. In contrast, the party who breaches the tort-tract (by either driving carefully or recklessly) can only expect a loss. By doing so, tort law assures the injurer that her liability would remain sufficiently diluted to make the tortious activity worthwhile.

*Champion ex rel. Ezzo v. Dunfee*51 is illustrative. Dunfee had been drinking prior to the accident. His girlfriend was aware of his condition.52 By voluntarily joining the ride as a passenger, she agreed to share the cost of an injury caused to a third party by the careless driving associated with driving in his condition. But she did not agree to a reckless ride. In fact, she explicitly objected when her boyfriend drove at 100 mph in an attempt to prove his car’s capabilities.53 The court correctly dismissed the driver’s third party suit against his girlfriend who agreed to share the cost of a careless, but not reckless ride. It held liable only the driver who deviated from the agreed-upon level of care.

The court reached the same result in *Keith v. J.A.*54 In that case, both defendants initially engaged in downhill snowboarding at high speed.55 One of them then took a position at the side of the hill to film the other.56 Upon his signal the other started snowboarding and shortly thereafter collided with the plaintiff’s wife.57 The court dismissed the complaint against the non-injuring (filming) party.

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48 See *supra* notes 27-30 and accompanying text.
49 A driver may drive recklessly due to an error or if the benefits from doing so outweigh the cost. For example, assume D2 (but not D1) values driving recklessly at $220. In such a case, if D2 harms the victim, she should expect to be alone liable for an expected gain of $20 (220-200).
50 The breaching party who drives carefully (without proper notice) does not gain the $60 benefit that comes with careless driving, but she will nevertheless have to share the cost of the injury inflicted by the careless party. This is the teaching of *Lemons*. Accordingly, she can expect to lose $50 (0-50). The party who drives recklessly and injures another can expect to lose even more. She would benefit $60 from the speedy race, but the reckless race comes with an expected injury of $200. Accordingly, she can expect to lose $140 (60-200).
52 *Id.* at 827 (noting also that “Dunfee’s blood alcohol was 0.143%).
53 *Id.* (Noting that the girlfriend “repeatedly told Dunfee to slow down: First when he reached 70 m.p.h., [she] said, ‘[T]hat's enough, you proved your point.’ Then when Dunfee approached 100 m.p.h., [she] again told him to slow down. A third time, she cursed at him.’).
54 *See also* *Keith v. J.A.*, 295 F. App’x 309 (10th Cir. 2008).
55 *Id.* at 311.
56 *Id.*
57 *Id.*
It held that agreeing to “skiing ‘fast’ is not the same as knowing” that the injurer would “ski at a reckless speed,” and that there was no evidence that the filming party encouraged “a reckless speed.” In doing so, the court protected the party who may have agreed to behave carelessly but not recklessly.

*Cooper v. Bondoni* stands for the proposition that a party who agreed to a reckless ride will have to share its cost as promised. In *Cooper*, four passengers provided the driver with alcoholic beverages and urged him to bypass a truck while driving uphill in a marked no-passing zone. While on the wrong side of the road the car collided with a motorcyclist, causing him severe injuries. The Court of Appeals of Oklahoma held all four passengers liable. It did not allow those who agreed to share the cost of a reckless ride to escape their tort-tractional obligation.

The Restatement (Second) makes a similar point by contrasting two hypotheticals. In the first, A helps B to burglarize C’s safe. B breaks in and “without A’s knowledge… burns [C’s] house in order to conceal the burglary.” In the second hypothetical, A helps B to trespass into C’s land so B can recapture chattel belonging to B. While B is on C’s property, she also burns C’s house. The Restatement (Second) notes that A is liable only in the first case, but not in the second. It explains that the difference between the two cases is that in the trespassing case the tortious act was “not foreseeable by [A].” In other words, the claim is that in the second scenario, setting the house on fire was not part of the tort-traction into which the parties entered, just as in Example 2B and *Dunfee*, driving recklessly was not part of the tort-traction.

Note that the analysis in these cases is made in two steps. First, contract law principles are employed to determine the scope of the parties’ obligations. In the second step, tort law enforces the agreement. The first part of the analysis—the contractual interpretation—is often the focus of the litigation. For example, one could agree with the Reporters that by aiding B to trespass on C’s land, A did not agree to share C’s damages. Another could argue with equal force that in both hypotheticals, A could have reasonably foreseen that C’s property would be damaged. And if so, that in both cases by agreeing to help B, A also agreed to share the cost of C’s injury. The parties can mitigate the problem by simply clarifying their intentions. For example, A could have clarified that, by providing a cutter to B, she is only willing to share the damage to C’s fence.

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58 Id.
60 Id. at 609, 612.
61 RESTATEMENT (SECOND) § 876 cmt. d, illus. 10.
62 RESTATEMENT (SECOND) § 876 cmt. d, illus. 11.
63 RESTATEMENT (SECOND) § 876 cmt. d.
64 See also Lussier v. Bessette, 16 A.3d 580 (2010). In *Lussier*, the court explained that under the Restatement (Second) of Torts § 876 cmt. a, illus. 2 where two drivers, A and B, decide to race, the non-injuring driver, “B, is liable. . . because, based on his knowledge of the situation, the particular harm which occurred—a collision caused by a drag race—was foreseeable.” Id. at 584. In contrast, “if A had told B the road was closed for their drag race, their actions could not be
4. **Waivers.** In some cases tort law also provides a default waiver that binds all those who agree to participate in a tortious activity. Under this boilerplate arrangement, an injured party cannot recover from the other participants if she agreed to participate in the tortious activity. Thus, if a driver or a passenger was injured during a race she agreed to, she cannot recover from the injurer.\(^{65}\) On the other hand, if in deviation from the agreement, the injurer behaved more carelessly than the parties agreed to, the court would hold liable only the breaching party. This is illustrated in *Bogle v. Conway*.\(^{66}\) Bogle, a passenger who agreed and even convinced the driver to participate in the race, sued both drivers for harm caused to him by their reckless behavior. The trial court found that Bogle agreed to a careless ride. But he did not agree to race side-by-side, uphill, in a marked no-passing zone at 90mph which resulted in a collision with a third party.\(^{67}\) The trial court found that both drivers were grossly negligent: the first for trying to pass and the other for failing to reduce his speed.\(^{68}\) On appeal, the drivers contended that the suit should be barred because Bogle agreed to participate in the race and assumed the risk associated with it. The Supreme Court of Kansas disagreed. It held that although Bogle agreed to join the race as a passenger, “there is no evidence that Bogle consented to anything as suicidal as what actually occurred.”\(^{69}\) In other words, Bogle agreed to a careless but not a reckless race. As a result, his suit was not barred, and both drivers were held liable for the entire harm.\(^{70}\)

5. **Apportionment.** The default agreement offered by tort law (the compliments of courts and legislatures) promises that the parties will share liability. It also promises that the cost of the accident will be apportioned according to some announced and predetermined rule. For example, a jurisdiction that applies several liability makes each party liable to the victim directly based

\(^{65}\) See e.g., Hathaway v. Eastman, 40. Misc. 3d 707, 709 (2013) (holding that regardless of comparative fault, a passenger who voluntarily participated and was injured in a race cannot recover from the other participants); Bugh v. Webb, 231 Ark. 27, 34 (1959) (a passenger who was aware of the hazard involved in a race and “had an opportunity to make a protest of some nature but wholly failed to do so” assumed the risk and is barred from recovery); Lewis v. Miller, 374 Pa. Super. 515, 520 (1988) (A driver who was killed while racing recklessly, uphill, at excessive speed cannot recover from the other driver); Riggott v. Bartlett, No. CV 920514789S, 1995 WL 780941, at *5 (Conn. Super. Ct., 1995) (“one racer is not responsible for the safety of another racer”); Parrott v. Garcia, 428 S.W.2d 476, 478 (Tex. Civ. App. 1968), writ granted (Oct. 2, 1968), aff’d, 436 S.W.2d 897 (Tex. 1969) (holding that a driver who was injured during a race by other participants cannot recover and noting that the same rule applies in other states).


\(^{67}\) *Id.*

\(^{68}\) *Id.* at 973-74, 976.

\(^{69}\) *Id.* at 975.

\(^{70}\) See also Bierczynski v. Rogers, 239 A.2d 218, 221 (Del. 1968) (“It is also generally held that all who engage in a race on the highway do so at their peril, and are liable for injury or damage sustained by a third person as a result thereof, regardless of which of the racing cars directly inflicted the injury or damage.”) (emphasis added).
on some percentage of fault determined by the jury (which ex-ante should be presumed as 50%). A jurisdiction that applies joint and several liability with a right of contribution would allow the party who fully paid the victim to recover a portion of the damages from the other party to the tort-tract.

6. Termination Provision. The agreement offered and enforced by tort law also includes a default termination provision. It allows parties to abandon or terminate the careless behavior to which they committed without fear of liability. But only if the party who wants to opt out communicates that to the other parties before it’s too late—that is, at a time when the other tort-tractors can do the same. This is the teaching of cases like Saisa and Lemons.

C. Benefit-Sharing Agreements

In the previous examples, concerted action served as a commitment device that allowed the parties to maximize their (and arguably society’s) interests by entering into a contract enforced by tort law, a tort-tract. In other cases, concerted action would fail to serve as a credible commitment device. This can happen in

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71 See infra Part IV.6.
72 See e.g., Ogle v. Avina, 146 N.W.2d 422, 426 (Wis. 1966) (“In a race, the participants share equally the responsibility for damage done by any participant”). Alabama is the only jurisdiction that does not recognize a right of contribution, but even in such a jurisdiction the parties can expect to pay 50% of the damage. Dillbary, Apportioning Liability (Part II). See also supra note 10.
73 See supra notes 27-30 and accompanying text.
74 See supra notes 27-30 and accompanying text.
75 Some economists take the view that a liability rule can be justified, even if the underlying activity may seem reprehensible, provided that the injurers value the activity more than the harm they inflict on the victim and that other conditions are met. See generally Stigler, George J., & Gary S. Becker, De Gustibus Non Est Disputandum, 67 AMERICAN ECONOMIC REVIEW (1977); See Richard A. Posner, Economic Analysis of Law 264, 274 (Vickin Been et al. eds., 9th ed. 2014) 102, 264, 274 (explaining that economics gives the same weight to the utility of the wrongdoer and the victim). Others believe that the nature of the activity is important in determining its value. For example, Posner, the judge, argued that the subjective value criminals receive “though perhaps great, is not the kind of benefit that has weight in the scales when on the other side is danger to life and limb.” Boim v. Holy Land Found. for Relief & Dev., 549 F.3d 685, 695 (7th Cir. 2008) (holding based on tort law principals that financial contribution to a terrorist group gives rise to liability under the Anti-Terrorist Act, 18 U.S.C. §§ 2331(1), 2333 (2012) (citing United States v. Boyd, 475 F.3d 875, 877 (7th Cir. 2007)). For similar views see Thomas J. Miceli, The Economics Approach to Law 75 (2004) (arguing that “in some cases the benefit to the injurer of inflicting harm may exceed the cost to the victim, but the benefit is not socially valuable.”); Gary Schwartz, Economics, Wealth Distribution, And Justice, Wis. L. REV. 799, 805-7, 811-12 (1979) (noting the “pleasure of [certain criminal acts] . . . should not be given any weight at all.”). See also Calabresi & Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 HARV. L. REV. 1089, 1125 (1972) (warning that compensating the victim with “an objectively determined value . . . would be to convert all property rule entitlements into liability rule entitlements” and warning that “[l]iability rules represent only an approximation of the value of the object to [the victim]”); Jules Coleman, Crime, Kickers, and Transaction Structures, in NOMOS XXVII: CRIMINAL JUSTICE 313 (J. Pennock & J. Chapman, eds. 1985) (criticizing the economic analysis of crime).
situations where an agreement that would maximize the parties’ payoffs requires that the parties share the benefits of their common enterprise. To see why, consider the following variation of Example 1.

Example 1A: Defamation and Benefits Sharing. D1 values harming P at $120. D1 promises to pay D2, the owner of a newspaper, $60 after she publishes a statement about P known to both to be libelous.76 P’s expected harm is $100. After D2 publishes the statement, D1 refuses to pay D2.

A commitment to pay D2 is necessary to induce her to commit the wrong.77 However, D2 knows that if she performs and D1 refuses to pay her, she will not be able to recover her $60 expectation damages. In the eyes of contract law, the agreement is unenforceable. Tort law will also fail to provide D2 with a remedy. The agreement to act tortiously results in a tort-tract to share the cost of P’s harm. This means that if D2 publishes the statement, she can expect to bear only half of the damages, $50. But tort law does not provide any benefit-sharing mechanism. Knowing this, D2 will not enter into an agreement with D1 to begin with, and consequently the tortious activity will not occur.

The main difference between Examples 1 and 1A is that in Example 1 both parties benefited directly from the activity. Both had a feud with P and each valued harming P at $60. Here, defamation has a “public good” aspect—at least in the eyes of the tortfeasors—in the sense that the act of one benefits the others.78 In contrast, in Example 1A, only D1 benefits from the activity ($120), and absent a benefit-sharing mechanism, D1 cannot entice D2 to commit the harm.

Still, a tort-tract can encourage parties with different valuations to commit a tort by increasing the expected benefits to the parties. This can be illustrated if

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76 D1 will never pay D2 upfront because in such a case D2 will keep the proceeds and will not publish the statement for a profit of $60, compared to $10 (60-100/2) if she does. See Restatement (Second) of Contracts § 197 cmt. a, illus. 1 (providing a similar example to show that, as a general matter, a party who agreed to commit or induce the commission of a tort has no claim in restitution). A claim in restitution may nevertheless be available if the party asking for restitution “withdraws from the transaction before the [tortious act is committed].” Restatement (Second) of Contracts § 199(a) (A.M. Law Inst. 1981). See also Greenberg v. Evening Post Ass’n, 99 A. 1037, 1039 (1917) (“[I]n an action to recover back money paid for the purpose of carrying out a proposed illegal or immoral design, the plaintiff may recover upon proof that he reasonably repented of his bargain, and evidenced such repentance by repudiating the arrangement with reasonable promptness and before the other party had so far acted in performance of it as to carry any part of the illegal or immoral design into effect.”).

77 Without such a commitment D2 can only expect to share the cost of P’s injury and incur a $50 (100/2) loss. In contrast, if she can trust D1 to pay, D2 can expect a gain (60>100/2).

78 See Posner supra note 75 at 402 (defining a public good as “a good that can be consumed without reducing any other person’s consumption of it”). Similarly, when two drivers race, each confers a benefit upon the other, and upon interested bystanders and passengers. The passengers and bystanders also benefit the other participants by promising them a lower expected liability and higher gains. These gains will increase further as more participants (drivers, passengers and bystanders) join the activity.
in Example 1, D1 valued harming P at $80 and D2 valued harming P at $30. For convenience, the modified example is reprinted below.

**Example 1B: Defamation and Parties with Heterogeneous Valuations.**
D1 and D2 value harming their neighbor P at $80 and $30 respectively. D1 asks D2, who owns a newspaper, to publish a statement about P known to both to be false and defamatory. The expected harm to P is $100.

Here, the agreement between D1 and D2 will result in a tort-tract, but D2 will not publish the statement. If she does, she can expect to pay $50 (100/2), enjoy a benefit of $30, and thus lose $20 (50-30). Unlike Example 1A, here tort law does provide a solution. All the parties need to do is to find two additional actors to join the tort-tract. For example, suppose that as in *Kovar* and *Gosden* the parties convince others, D3 and D4, to also agree to share P’s harm. With the aid of concerted action theory, all four would be held liable as joint-tortfeasors who pursue a common plan. As a result, the expected liability of D2 will be diluted to $25 (100/4). Now publishing the statement becomes profitable (30>25). The point is that so long as some benefits accrue to the parties, tort law can encourage a wrongdoing provided that enough parties join the tort-tract.

**III. OTHER COMMITMENT DEVICES**

In the examples above, an agreement was a necessary commitment device. The parties entered into a contract that tort law enforced with the help of theories like concerted action. When the parties cannot negotiate, tort law allows them to enter into a tort-tract in a different way. The parties do not need to agree to commit a tort. Instead, each can act *independently* and *unilaterally* signal her commitment to engage in or sponsor the tortious activity. In these cases, tort law ensures that the signal is credible by forcing those who misrepresented their intentions to pay the injurer expectation damages. Tort law does so with the help of causation theories like substantial factor and alternative liability.

**A. Signaling by way of Contribution to the Harm and Sampling**

1. Substantial Factor as a Means to Enforce Tort-tractors’ Representations

To see how substantial factor doctrine serves as a credible signaling device that encourages actors to engage in tortious activities, consider the following example:

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79 See *supra* note 43 and accompanying text.
80 See *supra* note 44 and accompanying text.
Example 3: Campers. Each of five campers, C1-C5, values setting a fire at $20 and can take care at a cost of $50. A camper that acts carelessly would set a fire that alone could destroy the victim’s $90 cabin.81

One, two, three or even four campers will not engage in the activity because the expected liability of each (90, 90/2, 90/3, 90/4 respectively) will outweigh the $20 expected private benefit.82 But five campers would be very much interested in engaging in the activity, provided they all behave carelessly.83 In such case each can expect a gain of $2 (20-90/5).

Tort law, this time with the aid of doctrines like substantial factor, helps the would-be-injurers to fulfill their aspirations.84 Tort law does so by promising the parties that if they commit (by contributing to the harm) to acting carelessly, they will all be held liable. The imposition of liability does two things. First, it ensures that the activity will take place only if it is, at least initially, cost-justified. In the above example, it ensures that four campers will not engage in the activity (20x4<90), but five would (20x5>90). Second, by ensuring that all will share the victim’s harm, each of the five campers can expect a gain (20-90/5>0), which will increase with the number of tort-tractors. Importantly, substantial factor entices the parties to tort-tract at low costs. The parties do not need to even agree with each other to behave tortiously (if they do, they would be considered tort-tractors by way of concerted action). They simply need to behave carelessly. As I showed elsewhere,85 each camper can also be considered a but-for cause of the harm. Indeed, but-for each of the campers’ engaging carelessly in the activity, the other four would not have engaged in the activity either, and the victim’s cabin would have been spared.86

2. Exempting Non-Injuring Parties from Liability

Unlike concerted action theory or its sister, alternative liability, the substantial factor doctrine holds liable only those who contributed to the victim’s

81 The example is based on the Restatement (Third) of Torts: Liab. for Physical and Emotional Harm § 27 cmt. a illust. 1.
82 The activity will be considered tortious if it is subject to strict liability. Even under a negligence regime the parties may be held liable. As I explained elsewhere, in applying the Hand formula a court may engage in an individual cost-benefit analysis. See J. Shahar Dillbary, Causation Actually, 51 Ga. L. Rev. 1, 21 (2016). In Example 3, it would compare the $50 cost of the precaution to the $90 harm to the victim and determine that taking care was cost justified.
83 Neither camper will take care because the cost of taking care is higher than the benefit therefrom (50>20).
84 For a different explanation that is based on a fairness rationale see Restatement (Third) of Torts: Liab. for Physical and Emotional Harm § 27 cmt. c (arguing that holding all parties liable “comports with deep-seated intuitions about causation and fairness in attributing responsibility”).
85 Dillbary, supra note 82 at 23.
86 The result does not change if five or more campers engage in the activity. See Id; infra Part IV.A.
harm. It does not hold those who could have contributed to the harm, but did not (as in the case of the non-injuring driver in Bierczynski\textsuperscript{87} or the non-injuring hunter in Summers\textsuperscript{88}).

The tort-tractual rationale provided in this article explains what may seem as an anomaly. Reconsider Example 3 above. One could conclude that the law of causation is perhaps too limited. Note that the example did not require that the campers’ fires actually merged.\textsuperscript{89} Indeed, the actual act of merging seems unnecessary. Even if only one fire actually reached the victim’s cabin and destroyed it, one can argue that all tortious campers should be considered a but-for cause of the harm. To see why, assume that of the five fires set tortiously, only the one set by C5 actually reached the cabin and destroyed it. Perhaps it was because the fires set by C1-C4 unexpectedly arrived at the cabin when it was already destroyed, or that C5’s fire blocked the other fires from reaching the house by removing trees necessary to C1-C4’s path of destruction. Although only one fire, the one set by C5, contributed to the harm, each of the independent actors is still a but-for cause of the harm. The reason is that neither camper would alone set a fire (20<50, 90). Each camper was willing to set a fire only if the other four campers would do the same. By taking the irreversible necessary steps to set a fire, each camper made a representation that she was willing to share the cost of the harm. This meant that each could expect a diluted liability of $18 (90/5) and thus a $2 profit (20-18).\textsuperscript{90} In other words, but-for C1-C4’s representations—visibly setting their fires tortiously—C5, the actual injurer, would not have done the same and the victim would not be harmed. It was the recognition that a certain number of campers tortiously set a fire, and the reliance that all would share the cost, that formed the actual injurer’s ex-ante expectations and convinced her to set the injuring fire.

The situation of non-merging fires is thus similar to the drivers’ case (Examples 2) where one of the careless drivers injured the victim, but both are considered a cause of the harm. Why then does substantial factor limit the pool of defendants to those whose fires reached the house and contributed to the harm? The reasons are grounded in pragmatism and economic considerations.

a. Calibrating the tort-tractors’ ex-ante expectations. One reason for limiting the pool of defendants to those whose fires contributed to the harm is to force actors to carefully calibrate their ex-ante expectations. The narrow pool of defendants also incentivizes the parties to engage in the tortious activities when it is (at least at first approximation) cost-justified to do so. It forces each actor to

\textsuperscript{87} See supra notes 21-24 and accompanying text.

\textsuperscript{88} Summers v. Tice, 199 P.2d 1 (Cal. 1948) (holding liable two hunters who shot carelessly at the direction of the victim although it was clear that only one of them hit the victim).

\textsuperscript{89} If they did, they would be easily identified as a substantial factor, a Necessary Element of a Sufficient Set (NESS) and, as this article argues, also a but-for cause of the harm. For an explanation of the NESS test, see Richard W. Wright, Causation in Tort Law, 73 CAL. L. REV. 1735 (1985). The test was recently adopted by the Restatement (Third) of Torts: Liab. for Physical and Emotional Harm § 27 cmt. c (AM. LAW INST. 2010).

\textsuperscript{90} This assumes that each expected that the fires will merge at a very high degree of likelihood.
rely on the others’ careless behavior only if she believes with enough certainty the other’s action would contribute to the harm. Suppose C5 knows that a fire set by C1 is unlikely to reach the cabin or contribute to the harm. Substantial factor advises C5 to exempt from her cost-benefit calculus C1’s actions. It announces that she can expect to pay only ¼ of the victim’s harm. As a result, C5 would avoid the tortious activity—the socially desirable result. In other words, only a commitment by way of contributing to the harm can be considered a credible representation on which the injurer may rely.

Those who believe that efficiency requires that the actors behave carelessly may be concerned that C5 may be over-deterred. The argument could be that, if C5 were so worried that her liability would not be sufficiently diluted, she would avoid the activity when she should not. However, this would only entice actors to enter into agreements to engage in tortious activities. Such agreements would provide a “peace of mind” to the tortfeasors by defining with certainty the pool of liable parties. These agreements could, under certain conditions, be welfare enhancing.91 If C1-C5 agree to act in concert, because all would be liable (e.g., under concerted action theory), it must be that their aggregate private benefits outweigh the harm.

b. Moral Hazard. Another reason for substantial factor’s insistence on contribution to the harm is to curb a moral hazard concern and avoid unnecessary and wasteful litigation. To illustrate this, suppose that C5 values the activity at $100. In such a case, she would act—even if she believes that she is the sole camper—for an expected gain of $10 (100−90). If after the accident occurs she can also pin liability on C1-C4, she would increase her gain by more than eightfold to $82 (100−90/5). Moreover, the injurer would likely seek to implead any actors who set a fire, arguing that their actions were tortious (and thus entered her cost-benefit calculus). She would do so even if she was not and could not be aware of their actions at the time of injury. The substantial factor mitigates such attempts by allowing the injurer to recover only from those who made an actual contribution.

3. Sampling and the “Substantiality” Requirement

In concurrent causes cases, the contribution made by each careless actor is a crucial ingredient in the tort-tract. It is a representation that credibly communicates the careless actor’s willingness to share the cost of the harm. The signal is credible because tort law allows those who relied on the representation to recover their expectation damages against a reneging party. This insight explains why an actor whose behavior is clearly a but-for cause of the harm can be exempted from liability. This can occur if the actor engaged in sampling to

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91 Assuming, among other things, that tort-tractor’s private benefits are given weight, that damages are set at the correct level and that it is not expected that potential victims would react strategically to avoid such harms (e.g., by underinvesting in capital or over investing in care).
determine whether enough actors are willing to engage in a tortious activity. To illustrate this, consider the following example.

**Example 3A: Insufficient Causes and Trivial Contributions.** Five farmers, F1-F5, are located next to a $90 lake. The lake will be destroyed if 100 units of pollution are released. Each farmer can either engage in polluting activities (e.g., raising chickens) or pollution-free activities (e.g., growing corn).

First, suppose that each farmer values a certain polluting activity (e.g., raising chickens) at $20 and can avoid harming the lake if she installs a $50 filter. Four farmers will not pollute because they can only expect a loss (20-90/4<0). But if a fifth joins them and is also held liable, all would be happy to pollute because the diluted liability (90/5) would promise each a $2 (20-90/5) gain. Note, that in this case each farmer is a but-for reason for the harm. Indeed, if one farmer did not join the activity, none would pollute and the lake would be spared. This is true regardless of the number of pollutants released by each. If F1 released 100 units of pollution and F1-F4 10,000 units, each of F1-F5 is still a but-for cause of the harm.

F1-F5 are better off engaging in the activity, but it is not clear that they will. The problem is that none of the farmers know (i) what the other farmers plan to do with their land (e.g., raise chickens and pollute or grow corn instead); (ii) the level of their activity and thus pollution (e.g., whether each will raise 100 or 1,000 chickens) and (iii) their subjective valuation (e.g., whether each values the activity at $20 or another amount). Each farmer would be concerned that if only a small number of farmers act tortiously, her liability will not be sufficiently diluted. The result is a Farmer’s Dilemma reminiscent of the Drivers Dilemma: Each farmer is better off raising chickens if at least four other farmers do the same, but growing corn otherwise.

One way to avoid the Farmer’s Dilemma is by way of negotiations. If the parties can, they will enter into an agreement to behave carelessly. But what if the farmers cannot agree? As with the Drivers’ Dilemma, tort law solves the Farmers’ Dilemma in favor of behaving carelessly. It does so by allowing each of them to “test the ground” by way of sampling. Each farmer can release an insubstantial number of pollutants (e.g., by raising only a small number of chickens) to see if others would do the same. For example, assume that after F1 released an insubstantial number of units F2-F5 followed suit. In such a case, if each farmer values the activity at $20, all would incrementally increase their activity levels (e.g., raise more chickens), continue to pollute, and expect a profit.

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92 See supra Section II.A.3.
93 The agreement does not need to reveal the farmers’ reservation prices or the nature of their operation. The agreement itself implies that each values a tortious activity more than her expected diluted liability (or they won’t agree to act tortiously).
If the lake is destroyed, substantial factor theory will hold all liable and ensure that each pays only 1/5 of the harm for an expected gain of $2 (20 - 90/5).

Suppose now that F6 values the tortious activity at $11. First note that F6 will not engage in the activity unless joined by at least 8 other farmers. In such a case she can expect a gain (11 - 90/9 > 0). Here, if F6 started producing on a low scale (and thus released a trivial amount of pollutants), F1-F5 would do the same. If no other farmers join the group, F6 would cease its operation to avoid a loss and switch to a non-tortious activity (e.g., raising corn). In contrast, F1-F5 will continue polluting. For them, it is enough that the cost of the lake is split five ways (20 - 90/5 > 0). The substantial factor doctrine allows sampling by exempting from liability F6, who contributed only trivially to the harm.

Sampling is more likely to occur if the law exempts from liability the sampler who found that the activity is not worthwhile (F6 in the latter example). The Restatement (Second) encourages sampling in two ways. First, it imposes liability only on those who contributed substantially to the harm. Relevant considerations include (a) “the number of actors which contribute to the harm and the extent of the effect which they have in producing it”; (b) whether the actor’s conduct was “continuous and active operation up to the time of the harm”; and (c) the “lapse of time.” This allows the sampler who polluted only trivially at an early point in time to scale back and cease the activity without being held liable. Second, even if one contributed substantially, the Restatement (Second) is willing to exempt from liability an actor whose contribution was a “relatively small and insignificant part to the total harm.” Similarly, the Restatement (Third) exempts from liability an actor whose “negligent conduct constitutes only a trivial contribution.” The exception applies only when there are multiple sufficient causes and the tortious conduct at issue constitutes a trivial contribution to any sufficient causal set.

Both Restatements are too narrow and may destabilize the parties’ expectations and result in sub-optimal activity levels. For example, suppose that F1 released 100 units of pollutants—the minimum amount of pollutant that would destroy the lake, but each of F2-F5 released 10,000 units. A court following the Restatements may conclude that, because F1’s contribution is trivial or insubstantial by comparison to the others, F1 should be exempted from liability. But F2-F5 would not have engaged in the tortious activity if they had known that F1 would not be held liable. Moreover, when F1 decided to continue with her operation beyond mere sampling, she could not have known that her contribution would be that trivial compared to the other. And accordingly, she could not have

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94 F6 may, of course, be happy to resume the polluting activity once the lake is destroyed. In such a case, a free riding concern may develop. For possible solutions, see *Dillbary supra* note 11 at 958.

95 RESTATEMENT (SECOND) § 433.

96 RESTATEMENT (SECOND) § 433B cmt. e.

97 RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 36 (AM. LAW INST. 2010).

98 RESTATEMENT (THIRD) OF TORTS: PHYS. & EMOT. HARM § 36 cmt. b.
known that she would be exempted. Each of F1-F5 joined the tort-tract because she relied on the fact that her liability would be sufficiently diluted. The exemption should thus be applied with much caution. It should not apply to committed actors: those who engaged in more than sampling.

4. Tortious and Non-Tortious Forces

An important area of controversy between the Restatement (Second) and the Restatement (Third), and one this article can illuminate, is the case of duplicate forces, where one of the forces is non-tortious. Suppose, for example, that two fires—one set carelessly by a camper and another caused by a lightning strike—merged and destroyed the victim’s cabin. Both Restatements would conclude that the tortious actor is a (substantial factor, a sufficient force or NESS) cause of the harm. The difference is that a court that follows the Restatement (Second) will hold the tortious actor liable for the entire harm. Under the Restatement (Third), on the other hand, the tortious actor may not pay any damages.

Interestingly, the Reporters of Restatement (Third) were not always so certain about the state of the law. In the first draft they adopted the same position as the Restatement (Second). By 2007 they took the current view, explaining

99 Restatement (Second) § 432(2) (“If two forces are actively operating, one because of the actor’s negligence, the other not because of any misconduct on his part, and each of itself is sufficient to bring about harm to another, the actor’s negligence may be found to be a substantial factor in bringing it about.”).

100 Restatement (Third) of Torts: Phys. & Emot. Harm § 27 cmt d (“This Section applies in a case of multiple sufficient causes, regardless of whether the competing cause involves tortious conduct or consists only of innocent conduct.”). See also § 27 cmt c (Reporter’s Notes) (explaining that the “causal-set model [adopted by the Restatement (Third)] is also consistent with the necessary element of a sufficient set (NESS) test that Professor Wright has refined and popularized in recent legal academic literature on causation” (citing Richard W. Wright, Causation in Tort Law 73 CAL. L. REV. 1735 (1985)). See also supra note 89.

101 This is the result of the causation rule set in Restatement (Second) § 432(2) ills. 3 & 4 (causation) and the apportionment rule set in Restatement (Second) § 433A(2) which in cmt. 1 explains that “[c]ertain kinds of harm, by their very nature, are normally incapable of any logical, reasonable, or practical division.” A “destruction by fire” is provided as an example. “Where two or more causes combine to produce such a single result, incapable of division on any logical or reasonable basis, and each is a substantial factor in bringing about the harm, the courts have refused to make an arbitrary apportionment for its own sake, and each of the causes is charged with responsibility for the entire harm.” Id.

102 Restatement (Third) of Torts: Phys. & Emot. Harm § 27 cmt. d (acknowledging that “[t]he Restatement Second of Torts § 432(2), cmt. d, provides that when innocent and tortious multiple sufficient causes concur, the actor responsible for the tortious cause is a legal cause of the harm and subject to liability for all of the harm” but admitting that “[u]nlike the Second Restatement, this Section does not address the matter of the amount of liability of such an actor—it only provides that such tortious conduct is a factual cause of the harm”).

that “[r]equiring the tortfeasor to pay damages for harm that would have occurred in any event due to non-tortious forces is less persuasive than when both causes are tortious.”\(^\text{104}\) Adopted in 2010, the final version of the Restatement (Third) omits the explanatory note, but it does express the Reporters’ final view that the victim may not receive any damages. This despite an admission “that virtually every one of the handful of cases to confront the situation adhered to [The Restatement (Second) 432(2)] comment d position.”\(^\text{105}\)

a. The Prior Literature

The admittedly proactive approach of the Restatement (Third) has been supported by a number of leading economists. Rizzo and Arnold, for example, take the view that the tortious actor should not pay any damages because the present value of the house is equal to zero due to the fire caused by the lightning.\(^\text{106}\) They explain that even if the fire set by lightning has not reached the house (but assuming it is destined to), no one would be willing to pay for it because its fate is doomed. On the other hand, when two tortious actors set the fires, the present value of the house should not be discounted and accordingly the parties should be jointly and severally liable for the entire harm. Rizzo and Arnold’s argument is lacking.\(^\text{107}\) The authors do not explain the basis for distinguishing between the two cases. After all, in the case of two tortious actors, each can argue, with equal force, that she did not cause any damage because the value of the victim’s house was zero due to the other fire.

Shavell takes a more extreme approach. He argues that in all overdetermined cases, the tortious actors should be exempted from liability because neither is a cause-in-fact.\(^\text{108}\) The “only apparent reason for imposing liability” in the case of two tortious actors, he argues, is to avoid “collusive behavior.”\(^\text{109}\) Absent liability, an actor who tortiously set a fire that is about to


\begin{quote}
Suppose that a field is burned by two combining fires, one set wrongfully by A, the other of unknown origin. If the origin of the second fire is innocent, A will pay no damages, because the present value of the property destroyed takes into account the impact of that fire. On the other hand, if the second fire is also of wrongful origin, its occurrence does not reduce compensable value. Thus, the objective marginal value product of each cause is the same as it would have been absent the other cause: the full value of the property destroyed.
\end{quote}

\(^\text{107}\) For a critical view of the authors’ proposal on other grounds see David Kaye & Mikel Aickin, \textit{A Comment on Causal Apportionment}, 13 \textit{J. LEGAL STUD.} 191 (1984).


\(^\text{109}\) Id.
destroy the victim’s house would “then convince another neighbor to set a second fire that would merge [with her fire] so that [both] escape liability.”

Shavell’s analysis focuses on an ex-post scenario. He argues that once one fire is raging, the actor who tortiously set the fire may try to collude with another. But if this is the “only” reason to impose liability on the parties—as Shavell argues—then a “no-liability” rule would be superior. The reason is that if we assume together with Shavell that the harm to the victim’s property is unavoidable, a liability rule would not save the property (it is doomed). It will only result in a distributive effect that would require costly adjudication with no economic benefits. Moreover, as explained below, an ex-ante analysis reveals that Shavell’s concern is unfounded. Imposing liability on actors does not avoid “a collusive activity;” it encourages actors to collude, but this could be socially desirable. The result is that to increase welfare, a tortious actor should always be liable, whether her fire combined with a non-tortious or tortious force.

c. Imposing Liability is Justified

A more nuanced analysis requires a distinction between ex-ante and ex-post considerations. The analysis reveals that the view reflected by the Restatement (Second)—holding a tortious actor liable for the entire harm—is justified.

i. Non-Tortious and Tortious Forces. Consider first the case where a non-tortious fire merges with a fire set tortiously. Begin with the ex-post analysis. Here, the efficient result would occur whether the tortious actor is subject to liability or not. To see why, assume a fire set by a non-tortious source (e.g., lightning) is already raging or will surely rage. In such a case, exempting the actor who tortiously caused the second fire from liability makes sense. The second tortious fire will not impose any additional cost (the house is already doomed), but it may generate some benefits.

An ex-ante analysis shows that if the non-tortious fire is indeed unpredictable and improbable (e.g., lightning), the socially desirable result will likely occur whether liability is imposed or not. In such cases, the actor will always expect to bear the victim’s harm alone. The fact that she may be exempted from liability under the Restatement (Third) is of no consequence. Unable to rely on the happenstance that her fire will merge with another, the actor can only expect to be the sole cause of the harm, and thus the only one liable. She will thus take care or avoid the activity so long as the expected judgment outweighs her expected benefits. If at the end of the day the tortious actor is subject to liability, the victim will also be compensated, if harmed.

The conclusion is that, administrative considerations aside, both no-liability and full-liability would be equally efficient. Still, a liability regime seems to be more consistent with the Restatement (Third)’s stated goals. If holding two tortious actors liable (and thereby incentivizing them to act tortiously towards the victim) “comports with deep-seated intuitions about causation and fairness,” it is

110 Id.
hard to see why holding the only tortious actor liable won’t. Exempting the tortious actor from liability is tantamount to giving her a windfall at the expense of a remediless victim.

The analysis above assumed that the non-tortious fire is wholly unpredictable and improbable. However, in some (likely rare) cases the possibility of harm by a non-tortious actor may be incorporated into the tortious actor’s ex-ante considerations. If so, a rule that exempts the tortious actor from liability will be inefficient. Consider, for example, the following hypothetical.

**Example 3B: Merging Fires.** A steel factory is located in a ravine that leads to P’s $100 cabin. The factory expects a $50 benefit from its operation. The production process is such that there is a 40% chance that it would result in a fire, but this can be avoided if the factory installs a $20 device. Given the topography and other factors, it is known that any fire will destroy P’s cabin, and that if the fires originate from the factory and natural conditions (e.g., lightning), the chance of which is 10%, they would merge.

First, note that if the factory does not take care it will increase the risk of harm by only 30% (40-10). In the other 10% of cases, the harm would occur anyway due to the natural conditions. Thus, from a social perspective, taking care is cost-justified only if the cost of precaution is cheaper than the incremental increase in expected harm—that is, if it is cheaper than $30 (30% x 100).

If the law exempts from liability the tortious party whose fire merges with the natural fire, the actor will not take care. On the other hand, a rule that imposes liability for the entire harm would incentivize her to take care (20<40% x 100). But if the cost of care is $35, a liability rule would be inefficient. It would incentivize the factory to take care (35<40) when care should not be taken (35>30). Liability above $30 may be “excessive.” The ideal liability rule would thus be one that imposes on an actor liability that is equal to the marginal increase in the expected liability due to her tortious activity. Administering such a rule will likely be too costly, if not impossible (could courts really determine the incremental increase in expected liability due to the tortious behavior?). Here, the economist lawyer must make an empirical assumption. Which situation would be costlier to society: a no-liability rule resulting in under-investment in precaution, or a liability rule resulting in over-investment in precaution? If one believes that over-deterrence is preferable—and one can easily provide moral and theoretical arguments in support of that assumption—then holding the tortious actor liable is preferable. This is the view of the Restatement (Second).

ii. **Tortious Forces.** For completeness, consider now the case of two tortious actors whose fires may merge. The ex-post analysis in this case is identical to the one discussed in the previous section. Given one fire, setting another may provide benefits at no cost. For example, if one enjoys seeing a house burned down by a large fire, setting the second tortious fire could even be perceived as socially desirable.

111 RESTATEMENT (THIRD) § 27 cmt. c.
**Contracting for Torts**

*Ex-ante*, if the parties are unaware of each other, the analysis is also identical to that of the lightning hypothetical. Suppose that each actor expects a $30 benefit and the expected harm to the victim is $40. Neither would engage in the risky activity because, unaware of the other, each would expect a $40 judgment and thus a $10 loss (40-30). It is true that at the end of the day each may pay less (e.g., $20), but this is a windfall that does not enter the actors’ *ex-ante* considerations.

On the other hand, if the parties are aware of each other and can credibly pre-commit, the parties will have an incentive to enter into a tort-tract (for example, by way of an agreement). The tort-tract would allow each to expect a diluted liability of $20 (40/2) and accordingly, a $10 profit (30-20). Thus, while Shavell’s concern was that, absent liability, parties would collude to avoid liability, this article shows that, if subject to liability, the parties would have an incentive to collude, but this would produce a desirable result. Moreover, if the actors are not subject to liability, they would be better off engaging in risky activities even when it is socially undesirable to do so; for example, when each benefits $15 (15x2<40).  

The conclusion is that liability aligns the actors’ incentives with that of society. The reason, however, is not based on “intuition” or a nebulous discounting theory. The reason is that in the case of multiple actors, the imposition of liability and its dilution incentivizes the actors to act tortiously and perhaps even efficiently (assuming enough actors join the activity). In contrast, exempting the parties from liability could result in welfare-decreasing accidents.

**B. Signaling by Way of Enabling the Tortious Act**

Another way to independently signal one’s commitment to engage in tortious activity is to enable it. An example is *Moses v. Town of Morganton*. In *Moses* two actors polluted a creek located above the plaintiff’s land: A municipality emptied human waste from its sewages, and an animal processing operation discharged animal remains. A third actor, a power company, built a dam that backed up the polluted water onto the plaintiff’s land. Importantly, although each of the parties was aware of the others’ operations, each acted independently. There was no agreement. Still, the court held all liable:

If parties, although acting independently, know, or have reasonable grounds to believe, that their independent acts, combining with the independent acts of others, will create a result that will become a nuisance,

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112 Shavell, *supra* note 108 at 495, seems to argue that even when “two individuals are known always to set their fires independently” the parties should not be liable.
113 See *supra* notes 106 and 111.
and they do so causing damage, they become as it were joint wrongdoers ab initio, and are liable as joint tortfeasors.\textsuperscript{115}

In cases like Moses, even absent an agreement, each actor may be able to rely on the others’ behavior and thus independently decide to engage in the activity. This is especially true when the activities and the injury are not instantaneous so that each actor can engage in tortious activity (pollution or building a dam) while observing the others doing the same. Moses is also interesting in that it took three actors to cause the harm. Thus, each party could rely on the fact that its tortious activity would not give rise to liability unless enough tortfeasors joined the party and thus diluted its liability. In other words, each actor had a dominant strategy to act tortiously.\textsuperscript{116}

\section*{C. The Substitution Hypothesis}

\subsection*{1. Refining the Hypothesis and Offering Predictions}

Part II shows that, in some cases, an agreement is necessary to allow the parties to pre-commit to engage in or sponsor a wrongful activity. In other cases, conscious parallelism, or credibly signaling the commitment, would suffice. Armed with this insight, it is now possible to refine the Substitution Hypothesis discussed in \textit{Causation Actually}.\textsuperscript{117} Under the hypothesis, certain group causation theories—including concerted action, substantial factor, and alternative liability—can be interchangeable. This article shows that they can all serve as a commitment device that dilutes the expected liability of the injurers—those who physically harmed the victim. And, by doing so, these theories can encourage the parties to act tortiously in the first place.

\textsuperscript{115} Id. at 423 (emphasis added). See also Warren v. Parkhurst, 92 N.Y.S. 725, 727 (N.Y. Sup. Ct. 1904), aff’d, 93 N.Y.S. 1009 (App. Div. 1905), aff’d, 78 N.E. 579 (N.Y. 1906) (“[W]hile each defendant acts separately, he is acting at the same time in the same manner as the other defendants, knowing that the contributions by himself and the others acting in the same way will result necessarily in the destruction of the plaintiff’s property. If necessary, in order to get at them, a court . . . may infer a unity of action, design, and understanding, and that each defendant is deliberately acting with the others in causing the destruction of the plaintiff’s property”).

\textsuperscript{116} To illustrate this, consider two facilities located next to a $100 lake. Each benefits $60 from its operations. Neither alone can harm the lake. But if the waste from both operations is released the lake will be destroyed. Each factory can avoid polluting if it installs a $55 device. Assume the facilities cannot communicate. Here, a careful operation promises a $5 gain (60-55). However, producing carelessly promises, at a minimum, $10 (60-100/2). Importantly, each facility does not even need to know whether the other operates with care. If the other does, each can expect to gain $10 (60-100/2). If the other does not, the careless facility can expect to reap $60 (it takes two to harm). Note that if the parties could, they would agree that only one factory takes care, in which case the lake would be saved and the facilities would benefit together $65 (60x2-55). Benefit sharing agreements are discussed in \textit{supra} Part II.C. and \textit{infra} Part III.C.2.

\textsuperscript{117} Dillbary, \textit{supra} note 82.
It is thus not surprising that courts use these causation theories interchangeably. For instance, in Example 2, the two drivers can be held liable under a concerted action or substantial factor theory if each contributed to the harm. Similarly, the court may apply concerted action or alternative liability if it is not clear which driver was the injuring party. Two famous hunting cases, Oliver v. Miles and Summers v. Tice, illustrate the interchangeability. In both cases two parties in a hunting group shot carelessly and one of them, although it was not clear whom, injured the victim’s eye. The Oliver court used concerted action theory to hold liable both hunters. The Summers court reached the same result by applying alternative liability. And, in McMillan v. Mahoney, a case with a similar fact pattern, the court explicitly held that the plaintiff could recover under a theory of concerted action, alternative liability, or both.

Still, the three doctrines are not identical and in some cases they will not be interchangeable. It is now possible to provide a more detailed prediction as to when the three doctrines can be used. In cases where all parties contributed to the harm, tort law can use a concurrent causes theory like substantial factor to impose liability on all. There is no need to look for an agreement to hold them liable. By contributing to the victim’s harm, each party indicates that it is in her best interest to act carelessly, and accordingly, that the accident is, at least at first approximation, socially desirable. For if the benefit of each party outweighs the diluted cost, it must be that the total benefits outweigh the cost to the victim. By contributing to the harm, the actor also commits to shoulder liability. An agreement is thus unnecessary. In these cases, concerted action and substantial factor theories are truly interchangeable.

In other cases, some of the parties clearly did not cause the harm, but their commitment to liability-sharing in case of an accident is still strong. It is their tortious, if non-injurious, actions which signal the commitment necessary for dilution to occur. Cases like Summers and Oliver belong in this category. In both, by joining the activity (hunting), each hunter credibly signaled his commitment to cost-sharing. Regardless of whether the court applies alternative liability (as did the court in Summers) or concerted action (as did the court in Oliver) both hunters

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118 Oliver v. Miles, 110 So. 666 (Miss. 1926).
119 Summers v. Tice, 199 P.2d 1 (Cal. 1948).
120 Oliver, 110 So. at 668 (“We think that they were jointly engaged in the unlawful enterprise of shooting at birds flying over the highway; that they were in pursuit of a common purpose; that each did an unlawful act, in the pursuit thereof; and that each is liable for the resulting injury to the boy, although no one can say definitely who actually shot him.”).
121 Summers, 199 P.2d at 3-4.
122 McMillan By & Through McMillan v. Mahoney, 393 S.E.2d 298, 300 (N.C. Ct. App. 1990) (reviewing such decisions and concluding that “[n]umerous cases [from different jurisdictions] allow a plaintiff to recover either under [alternative liability] theory, under a theory of ‘acting in concert,’ or under some combination of the two.”).
123 By denoting Bi, as the benefit to actor i, and D the expected damage to the victim, it must be that if Bi>D/n then the aggregate benefits of the n actors, ∑Bi, outweigh the expected cost, D (i.e., ∑Bi > D), which means that the accident is, at least initially, cost-justified.
know that both will be liable and accordingly that the cost of any injury will be split between them.

Finally, in some cases there is simply nothing, short of an agreement, that would assure the parties that non-injuring parties who were the actual cause of the accident would also be liable for its consequences. A drag race in which dilution requires that the spectator be held liable belongs in such a category. Substantial factor and alternative liability cannot assure the injurer that non-injuring parties will shoulder her liability in case of an accident. Concerted action, however, can.

2. Substitutes as Second-Best Options

An actual agreement enforced by tort law—a tort-tract—has many benefits. A major benefit is that each party can be sure, with a high degree of certainty, that her liability will be sufficiently diluted to justify her tortious activity. Moreover, an agreement provides a better dilution mechanism because it allows those who cannot even potentially contribute to the harm to share its cost and thus induce others. This is illustrated in Example 2A, where a race between two drivers promised each a gain of $60, but an expected cost of $150 to the victim. In such a case neither driver would want to race because each driver could only expect a loss (60-150/2<0). But if a bystander or passenger pre-commits (by way of an agreement) to share the cost of an injury, each driver would race carelessly for an expected benefit of $10 (60-150/3).

An agreement to act tortiously would benefit the parties and, under certain circumstances, may even be socially desirable. But as this section shows, in some cases an agreement is not an option. This can happen if the cost of transacting is too high. In other cases, it is the inability of the law to enforce an agreement to share the benefits of a tortious enterprise that would force the parties to tort-tract by way of contributing to the harm. The following example is illustrative:

**Example 3C: Polluting Factories.** Two factories are located next to P’s $50 property. If one factory acts carelessly, the pollution and waste it releases will not suffice to cause any harm to the victim’s property. However, if both factories operate carelessly, the property will surely be destroyed. Each factory benefits $35 and the cost of care for each is $30.

From a social perspective it is better that one factory takes care and the other does not. In such a case P’s property will not be destroyed (it takes two to harm), the careless factory will profit $35, the one that operates with care will enjoy a $5 (35-30) profit, and society’s welfare will increase by $40 and reach its peak.124

The factories’ actions, however, depend upon the effect of tort law on their private payoffs. First, consider what would happen if the factories were not

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124 Total welfare will be $10 (35x2-30x2) if both take care, $20 (35x2-50) if none takes care and $40 if only one factory operated without care (35+35-30).
subject to any group causation liability (like substantial factor or concerted action). In such a case, each factory would have a dominant strategy to act without taking care. Taking care promises each an expected gain of $5 (35-30), but acting carelessly with impunity promises an expected gain of $35, regardless of the other party’s actions. Accordingly, both factories would operate carelessly, each would expect a gain of $35, the victim would be harmed and uncompensated, and total welfare would increase by only $20 (35x2-50).

If the law held (as it does) all careless parties liable (for example by applying the substantial factor doctrine) the same result would occur: both factories would operate carelessly and total welfare would not change (35x2-50). To see why, consider F1’s payoff. If F1 takes care it can expect to gain $5 (35-30). On the other hand, if F1 and F2 both act carelessly, F1 can expect to gain $10 (35-50/2). And, if F1 acts carelessly while F2 acts with care, F1 can expect $35. The result is a dominant strategy to act carelessly (10,35>5). No matter what the other factory does, each factory is better off forgoing care, even if as a result it will be held liable. The parties’ payoffs are summarized in Table 2 below.

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<td>Operate Carefully</td>
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<td>Operate Carelessly</td>
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Table 2: The Factories Payoffs When Liability Attaches

To summarize, the parties would behave carelessly under a no liability regime as well as under a regime that holds them liable. On the other hand, if the parties could negotiate and enter into a binding contract, they would agree on the socially desirable result. They would devise a contract that is comprised of two parts. The first is that one of the factories operates carelessly and the other carefully. The result would be a combined net profit of $40 (35+5). The second

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125 Under the Hand formula a factory that does not take care will be considered in breach of its duties because the $30 cost of precaution is outweighed by the $50 expected harm. See also supra note 82 (explaining that courts engage in individual (rather than aggregate) cost-benefit-analysis).

126 Because the harm to the victim does not materialize unless both factories act carelessly, the only difference in the parties’ payoff is in the case where they both act carelessly. In such a case, each expects a diluted liability of $25 (50/2) and thus an expected gain of $10 (35-25) which is still better than the alternatives (no operation or taking care).

127 The main difference between the two situations is distributional: when the parties are held liable, the victim will be compensated. See also infra note 128.

128 As I explained elsewhere, holding the parties liable is preferable because the threat of liability would encourage them to act carelessly only if such behavior increases societal welfare. See Dillibary, supra note 82.
part would devise a *benefit-sharing* mechanism. For example, the parties may agree to share the expected gain equally. In such a case, each can expect $20 (40/2), twice the expected gain they can enjoy if they act independently.

If the parties cannot negotiate or if courts find such agreements to be against public policy, in violation of antitrust laws or otherwise unenforceable, the parties would need to resort to second best options. To see why, suppose that the two factories agreed that F1 acts with care (and makes $5), F2 acts carelessly (and makes $35), and that the parties will share the profits equally. If the parties operate as agreed, but then F2 refuses to keep its promise under the second part of the agreement—that is, if it refuses to share its $35 profit—F1 will be remediless. Contract law will not provide F1 with a remedy because, by assumption, the contract is unenforceable. Concerted action theory will also fail to bring the private and socially desirable result. The problem is that a group causation theory is a *cost-sharing* mechanism. It dilutes the *cost* of operation—the expected liability in case of an accident. Concerted action is especially effective in diluting the injurers’ expected liability because it imposes liability even on those who did not actively participate in the wrongdoing. But even concerted action has its limits. Here, if the parties fulfilled Part I of the agreement (operation), there is no harm to be diluted. Because it takes two to harm, if F1 operates with care and F2 acts carelessly, the victim is not harmed at all. Moreover, concerted action does not provide a benefit-sharing mechanism. Unlike the drag race example where the benefits were conferred upon the parties immediately, F1 will not be able to enforce the benefit provision of the agreement and will thus enjoy an expected profit of $5 rather than $20. Knowing this, F1 will not enter into the agreement to begin with. Between an enforceable agreement that promises an expected gain of $5 or acting independently for an expected gain of $10, the latter option is preferable. The result is that an accident, which should and could be avoided if the parties took care, will occur.

The point is that *in some cases the parties must enter into agreement to avoid an outcome that would be bad for both them and society*. In the above example, the welfare enhancing result will occur if the law enforces a benefit-sharing contract that will allow the parties to avoid the predicaments of a prisoner’s dilemma. The result is a legal irony. Tort law enforces agreements to act carelessly and results in injuries. But in some cases, it cannot be used to enforce agreements that would avoid the accident to the benefit of all. Moreover, in many cases the parties may not be able to negotiate or enter into an agreement to begin with. In all of these cases, the substantial factor doctrine can serve as an effective but costly substitute. It will allow the parties to operate, but at some cost to third parties.

In other cases, the inability to share benefits may result in the curtailment of important and desirable products and services. This is illustrated in Example 3D below.
**Example 3D: Polluting Factories with Heterogeneous Valuations.** Two neighboring factories, F1 and F2, stand to benefit from their operation $40 and $20 respectively. A factory that operates would alone destroy P’s $50 property. Taking care is impossible (or too costly).

Suppose that both factories produce products or services that society deems valuable (e.g., the production of electricity and cement). Here, production comes at a cost to a third party, but it is welfare enhancing. It generates a total benefit of $60 ($40+20) at a cost of $50. However, without an agreement that allows the factories to share their benefits, the products will not be produced. F2 will not operate because it can only expect a loss ($20 - $50/2 < 0) and F1 would not operate alone ($40 < $50). An agreement to share profits will allow F1 to convince F2 to produce (and thus share the $50 expected liability). For example, a transfer of $7 from F1, together with an agreement to share the loss in equal shares, would allow both to expect a profit. The agreement, however, is destined to fail. Contract law would treat it as unenforceable. And, for the reasons explained earlier, tort law would also be unable to provide a remedy. The result is that unless other parties can join the tortfest, society would have to forgo a desirable product.

3. Concerted Action and the Agreement Requirement

The tort-tractual analysis allows us to redefine the nebulous concerted action theory. Prosser and Keeton, the Restatement (Second), and many courts have insisted that an agreement between the tortfeasors is a prerequisite for applying concerted action. The agreement can be explicit or tacit. But “mere knowledge by each party of what the other is doing” is not enough.

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129 See supra notes 78-80 and accompanying text.
130 See supra note 17 and infra note 131.
131 PROSSER & KEETON, § 46 at 323 (“Express agreement is not necessary, and all that is required is that there be a tacit understanding”). See also Sindell v. Abott Labs., 607 P.2d 924, 932 (Cal 1980), cert. denied, 449 U.S. 912 (1980) (citing PROSSER AND KEETON with approval); Smith v. Eli Lilly & Co., 527 N.E.2d 333, 350 (Ill. App. Ct. 1988), rev’d on other grounds, 560 N.E.2d 324 (Ill. 1990) (“The parties need not expressly agree to commit the tortious acts, but they cannot be held liable unless there is a tacit understanding between them”). Hall v. E. I. Du Pont De Nemours & Co., 345 F. Supp. 353, 371 (E.D.N.Y. 1972) (noting that “‘[c]ooperation’ or ‘concert’ has been found in various business and property relationships, group activities such as automobile racing, cooperative efforts in medical care or railroad work, and concurrent water pollution” and citing PROSSER AND KEETON for the preposition that “[e]xpress agreement is not necessary; all that is required is that there shall be a common design or understanding.”).
132 PROSSER & KEETON, § 46 at 323. Surprisingly, this seems to be also the view of the Restatement (Second). Compare the RESTATEMENT (SECOND) § 876 cmt. a (“Parties are acting in concert when they act in accordance with an agreement to cooperate in a particular line of conduct or to accomplish a particular result”) with cmt. d (the presence or absence of actor is relevant to determine whether there was “encouragement”) and illus. 6.
Courts that have argued otherwise have been chastised as being “clearly wrong.” Prosser and Keeton point to Moses v. Town of Morganton, as an example of providing such a “wrong” statement of the law. Recall that in Moses two actors polluted a body of water which was then “dammed up and backed up” by a third party, resulting in harmful deposits on the plaintiff’s land. The court found that each actor acted “independently” and that it was the parties’ combined acts which harmed the plaintiff. It then made the following statement which scholars like Prosser and Keeton interpreted as applying concerted action theory:

Where all have knowledge of the independent acts that create the result and continue the independent acts with knowledge, this ipso facto creates a concert of action and makes a common design or purpose. Any other position… would make plaintiffs practically remediless, although there is a nuisance which all jointly concurred in and contributed to, that is alleged made the plaintiffs’ land valueless, and but-for such joinder the injury would not have occurred.

In cases like Moses, it is true that “where all have knowledge of the independent acts that create the result and continue the independent acts with knowledge [that they will share liability], this ipso facto creates a concert of action and makes a common design or purpose.” But Moses is not a concerted action case, and it is not clear that the court alleged that it is as Prosser and Keeton argue. In fact, there is evidence in the decision to support the claim that the Moses court only drew an analogy to concerted action, and that it viewed the case as one involving concurrent forces.

To understand why Moses drew on concerted action theory, a quick detour to the history of the laws of joinder and apportionment is required. In the past,
the term “joint tortfeasors” only applied to those who acted in concert. In contrast, “[t]ortfeasors who concurrently, but unintentionally caused an indivisible harm were not considered joint tortfeasors.” As such they could not be joined to one proceeding and their liability had to be several, even if there was no rational basis for dividing the indivisible harm they caused. It is against this background that Moses should be interpreted. The defendants in Moses tried to avoid liability by arguing that because they did not act in concert; they were not “joint tortfeasors,” and thus each should be sued separately and neither should be liable for the acts of another. The Moses court rejected this argument. It explained that concerted action cases belong to only one category of cases where joint and several liability would apply. Other situations where joint and several liability apply include concurrent causes cases. “[W]here the negligence of two or more persons concur in producing a single, indivisible injury, then such persons are jointly and severally liable, although there was no…concert of action” (emphasis added).

Not surprisingly, the holding in other concurring causes cases is identical. In Tidal Oil Co. v. Pease, for example, the court held that “where, although concert is lacking, the separate and independent acts or negligence of several combine to produce directly a single injury, each is responsible for the entire result, even though his act or neglect alone might not have caused it.” In fact, the holding in Tidal Oil is a quote from Northrup v. Eakes—a concurring cause decision that is indistinguishable from Moses.

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142 Id.
143 Id. at 1737-38.
144 Id. at 1738-39.
145 Moses v. Town of Morganton, 133 S.E. 421, 422 (N.C. 1926) (the defendant argued that “it clearly appears, from the allegations of the complaint, that the three defendants herein are not joint tortfeasors, but, if tortfeasors at all, that they acted independently, without concert or collusion… to pollute the waters” and accordingly that “the causes of action alleged in the complaint are not joint but separate and severable…”).
146 Id. at 423 (“in many cases… to make parties joint tortfeasors, there must be a common concert of action, design, or purpose.”).
147 Id. (“There is a class of cases in which… [the defendants’] acts are concurrent… and unite in setting in operation a single destructive and dangerous force which produced the injury. There is also another class of cases in which [the defendants’]… acts are separate and distinct as to place and time, but culminate in producing a public nuisance which injures the person or property of another” (citing 26 R. C. L. p. 764).
148 Id. (emphasis added).
149 Tidal Oil Co. v. Pease, 5 P.2d 389, 391 (Okla. 1931) (citing Walters v. Prairie Oil & Gas Co., 204 P. 906, 908 (Okla. 1922)). Walters cited the quoted excerpt from Northrup v. Eakes, 178 P. 266 (Okla. 1918) on which RESTATEMENT (SECOND) § 433A (1965) illus. 14 is based (two actors who carelessly discharged oil into a stream that was ignited by an unknown source resulting in a destruction of the victim’s property are both jointly and severally liable).
150 Northup v. Eakes, 178 P. 266, 268 (Okla. 1918). Like Moses, Northup involved two careless polluters of streams that discharged waste. And like Moses a third party contributed to the harm. The only difference is that in Moses it was the builder of a dam who forced the debris to overflow into the victim’s property whereas in Northup it was an unknown source that ignited the oil that was discharged by the defendants resulting in a fire the destroyed the victim’s barn. See also
Finally, note that the facts of *Moses* are similar to Example 2A (two drivers and a spectator) and cases like *Cooper v. Bondoni*\(^{151}\) where passengers served the driver drinks and enticed a reckless ride. In all of these cases, some actors committed to share liability early in time. In *Moses*, it was the polluting factories, in Example 2A, it was the encouraging spectator, and in *Cooper* it was the passengers who served the driver with alcohol and urged him to bypass a truck in a no passing zone. And, in all of these cases, the harm would not have happened unless all parties committed the harm. Indeed, but-for the bystander and the passenger encouragement and the dam builder’s careless construction, the harm would not have occurred.

The fact that Prosser and Keeton (mis)characterized *Moses* as a concerted action case is thus not just understandable; it also evidences and is a testimony of the power of the Substitution Hypothesis. Causation theories like concerted action, substantial factor and alternative liability are all commitment mechanisms enforced by tort law. It is this similarity between the functions of the different theories that confused the authors. Understanding the substitution hypothesis allows us to clarify the confusion. In cases like *Moses*, the distinction may be meaningless. But it can matter, for example, if a fourth party contributed to the harm. It could not escape liability under Concerted Action theory (and it should not), but it could be exempted under the substantial factor theory, if for example, its contribution was trivial and was nothing more than a sampling attempt.

The point here is that tort-tracting is a way for the parties to pre-commit to engage in wrongdoing. And, this can be done if the parties (a) actually agree to commit a tort, (b) act carelessly but independently with the knowledge that others do the same (as did the parties in *Moses*), (c) can count on others to act carelessly (for example, because they have a dominant strategy to act carelessly), or (d) can otherwise credibly commit to share the victim’s damages.

IV. OBJECTIONS

The article argues that, currently, tort law steps into the realm of contracts. It does so by offering tort-tracts, facilitating their formation and enforcing their terms—terms that contract law refuses to enforce because of their very tortious

\[^{151}\text{See supra notes 59-60 and accompanying text.}\]
nature. And, that by doing so, tort law encourages the commission of tortious activities. It is important to note that the article does not argue that tort law is a perfect (it is not) or even the best substitute for contract law.\textsuperscript{152} Rather, its main goal is to highlight a phenomenon, start a vibrant discussion, and invite others to weigh in. Below are possible concerns and objections to the effects and effectiveness of tort-tracts.

1. \textit{The assumptions and examples}. The model relies on stylized examples and a number of assumptions.\textsuperscript{153} Begin with the empirical (and thus testable) assumption that actors (for profit enterprises as well as individuals) can and do engage in cost-benefit calculations (calculations that are mandated by the Hand formula).\textsuperscript{154} Start with the benefit side of the equation. There is no reason to think that spectators and drivers can determine how much they are willing to pay or accept to participate in a legal race, but they cannot do the same when it comes to an illegal drag race. And there could be little doubt that for-profit entities (e.g., the farmers in Example 3A, the steel factory in Example 3B, and the polluting factories in Examples 3C and 3D) can estimate their expected benefits. Moreover, the article does not assume that benefits and costs are certain. They never are. Instead, it speaks of expected values, which take under consideration the magnitude and probability of possible events.

Turn to the cost side of the equation. Calculating the expected cost of an activity is more complicated. Each actor must be able to determine not only the expected harm, D, but also her expected liability. To do that, each actor must also know that the number of participating actors, n, is large enough to make the activity worthwhile. Actors must also know the law in the limited sense that all participants would be liable if the victim is harmed, and accordingly, that the individual expected liability would be diluted to D/n. Calculating the expected cost is possible even if information on possible occurrences and their respective probabilities is partial or not available. For example, in some cases actors can use the maximum harm as a proxy for D. Examples 3C and 3D illustrate this point. There, each factory assumed that it will surely (that is, with a probability of 100\%) destroy the plaintiff’s property, whose value may be easily estimated. The ambiguity about the risk may also incentivize actors to take more extreme measures to reduce the expected liability. Drivers can race at night, in a deserted area or a poor neighborhood. This would allow them to reduce the chance of physically injuring a third party, the chance of detection and the magnitude of the damage.\textsuperscript{155}

\textsuperscript{152} The tort machinery comes with high cost, including error and litigation costs, which for simplicity, the article ignores.
\textsuperscript{153} Dillbary, supra note 82 Part V (discussing in detail some of the assumptions and limitations of the model).
\textsuperscript{154} United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947).
\textsuperscript{155} Because damages in tort are a function of the victim’s income, conducting the activity in a low income or poor neighborhood is likely to result in lower expected damages. See also Dillbary, supra note 82 at n. 212 and accompanying text; Ronen Avraham & Kim Yuracko, Valuing Black Lives: A Constitutional Challenge to the Use of Race-Based Tables in Calculating Tort Damages.
The assumption that each actor knows the number of participating actors, n, is also reasonable. In concerted action cases, the actors are parties to an agreement and as such can observe and determine if n is large enough. Moreover, tort law mitigates concerns regarding the size of n. It promises each racing driver that the number of liable actors—that is, n—will remain the same even if at some point during the race some of the spectators and drivers can no longer be seen.

The same is true in cases where the parties enter into a tort-tract by way of signaling. As Example 3A demonstrates, tort law, via its substantial factor doctrine, allows actors to sample without fear of liability in order to determine if enough actors—that is, if n is large enough—to make the activity worthwhile. Moreover, by imposing liability only on those who contributed to the harm, the doctrine requires parties to carefully (and conservatively) calibrate their estimation of n. The substantial factor doctrine incentivizes each actor to engage in the tortious activity only if she believes that enough actors would harm the victim; and “punishes” those who overestimated that number.

There are also reasons to think that actors know (or could easily predict) that the law imposes liability on multiple actors and as a result dilutes the liability of each. To begin with, in many cases more than one actor may harm the victim and if so, all injurers can expect to be liable. This is especially the case in concurrent causes situations where the harm will not materialize unless a minimum number of tortious actions combine. Second, many actors are likely repeat players or could at low cost learn that certain activities subject multiple parties to liability. Third, the fact that the group causation theories (e.g., concerted action) has been uniformly premised on fairness and morality grounds suggests that all participants should expect to share liability. The expressive function of doctrines like concerted action should also have an informative feature. The irony is that if the goal was—as it seems to be—to express distaste and dissuade actors from engaging the activities, it likely achieved the opposite result.

*12 (2017) (available at https://ssrn.com/abstract=2955165) (explaining that in the use of race-based tables to calculate damages Black victims receive lower damage awards compared to Whites); Ronen Avraham & Kim Yuracko, Torts and Discrimination at *9 (2016) (available at https://ssrn.com/abstract=2646901) (explaining that “not only does tort law’s remedial damage scheme perpetuate existing racial and gender inequalities, but also it creates ex-ante incentives for potential tortfeasors that encourage future targeting of disadvantaged groups).

156 This is the progeny decision like Saisa and Lemons. See supra notes 27-30 and accompanying text.

157 Denote n as the actual number of actors whose tortious behavior will contribute to the victim’s harm. Suppose now that actor i underestimates that number to be n’, such that n’<n. Assuming, for simplicity, that the other (n-1) actors would act regardless of actor i, then if actor i chose to behave tortiously she will be subject to a higher liability than she estimated (D/n’>D/n).

158 See RESTATEMENT (THIRD) OF TORTS: APPORTIONMENT OF LIAB. § 15 reporters’ note, cmt. a (AM. LAW INST. 2000) (“[C]oncerted action . . . expresses moral condemnation for the actions of all of the defendants, refusing to let the individuals escape from liability by claiming that their participation in the tort was less than that of the other defendants or that they did not themselves cause the plaintiff’s injury”) (emphasis added); Lyons v. Premo Pharm. Labs, Inc., 406 A.2d 185, 190 (N.J. Super. Ct. App. Div. 1979) (“The purpose of this theory is . . . to deter anti-social
A major benefit of the model is that its assumptions are testable. Future scholarship could, for example, examine the extent to which subjects are able to engage in cost-benefit calculations and their knowledge of the law. Finally, it is important to note that the model does not assume that parties are omniscient. The opposite is true. It assumes that each party knows her expected benefits but not others, that parties hold heterogeneous valuations, that courts are unable to determine (not even ex-post) the subjective value actors assign to activities, that actors behave strategically when possible, and that transaction cost are often high.

2. Punitive Damages. Punitive damages can serve as an anti-dilution mechanism but their effect may be limited. To begin with, in a few states, damages are “punitive” only in name, but in substance they are merely compensatory. Some states, like Louisiana and Massachusetts, prohibit the award of punitive damages unless a statute allows it, while others, like Alabama, cap the amount that may be awarded.

Moreover, although in many of the examples the tortious activities were intentional in the sense that the parties weighed the cost from and benefits of their actions and were interested in the activity (as opposed to harming another), such an intention may not suffice for punitive damages. Mein ex rel. Mein v. Cook, a case involving two racing cars and an injured passenger, is illustrative. In Mein, the Courts of Appeals of Arizona held that a “race on a public street after an evening of drinking” was not an intentional tort. Relying on the Restatement of Torts (Second), it explained that a tort can be considered intentional “only if [i] the actor desired to cause the consequences—and not merely the act itself—or if [ii] he was certain or substantially certain that the consequences would result from the act.” It then concluded that drag racing, without more, does not meet the required standard:

behavior.”); Abel v. Eli Lilly & Co., 343 N.W.2d 164, 176 n.19 (Mich. 1984) (explaining that concerted action “seems to have developed to deter hazardous group behavior”).

159 1 Punitive Damages: Law and Prac. 2d § 4:5 (2017) (“As awarded in Michigan, exemplary damages are proper only to compensate the plaintiff for humiliation, a sense of outrage or an indignity) (emphasis added) (citing Unibar Maintenance Services, Inc. v. Saigh, 283 Mich. App. 609 (2009)).


161 Ala. Code § 6-11-21 (with a few exceptions, “no award of punitive damages shall exceed three times the compensatory damages of the party claiming punitive damages or five hundred thousand dollars ($500,000) [or 1,500,000 if the plaintiff sustained a physical injury], whichever is greater.”).


163 Id. at 100.

164 Id.
There is no evidence, however, that [the two drivers] agreed to commit an intentional tort… [T]he parties may have agreed on conduct but there is no evidence they agreed to cause an accident or serious physical injuries… Absent evidence that [the drivers] had a desire to cause harm to Mein or knowingly agreed to have a serious accident, they did not agree to commit an intentional tort within the meaning of A.R.S. § 12–2506(D)(1).165

The court then addressed the substantial certainty test. It held that the race conducted at 10:45 pm on a public street under the influence of alcohol,166 “cannot support a finding that significant harm was certain or substantially certain to occur.”167 It explained that causing substantial risk of harm is not enough. “To be deemed an intentional act, there must be certainty or substantial certainty that significant harm will result”—and that, according to the court, the plaintiff could not show.168

Even if the tort is considered intentional and as such could give rise to punitive damages, it is not clear at all that it would.170 In most states, the statutory standards require the plaintiff to prove not only that the conduct was outrageous and intentional, but also to do so with clear and convincing evidence.171 Moreover, punitive damages may be especially inappropriate and unlikely where the parties are faultless, the activity is deemed socially desirable and liability is strict. An example is a case where the actors produce a product that society desires and even commissioned (e.g., the production of electricity). In such cases, aware of the important social value of the activity, courts refuse to award punitive damages and even issue injunctions.172

165 Id. at 100–101 (emphasis added).
166 Id. at 97.
167 Id. at 101.
168 Id. at 101.
169 Id. at 102 (“It is unquestionably dangerous to drink and drive, and it is even more dangerous for two drivers to then drag race on a public street. Such conduct is irresponsible and reprehensible. But even if one believes that injury was likely or probable to occur, we do not perceive that this record supports an inference that these drivers knew to a certainty or substantial certainty that a serious injury was about to occur.”).
170 Restatement (Third) of Torts: Inten. Torts to Persons Scope Note TD No 1 (2015) (“a finding of an intentional tort is not, by itself, necessary or sufficient for an award of punitive damages.”).
171 Id. For state statutes requiring proof by clear and convincing evidence see e.g., Ala. Code § 6-11-20(a) (West 2015) (“Punitive damages may not be awarded in any civil action … other than in a tort action where it is proven by clear and convincing evidence that the defendant consciously or deliberately engaged in oppression, fraud, wantonness, or malice with regard to the plaintiff”); Cal. Civ. Code § 3294(a) (West 2015); Kan. Stat. Ann. § 60-3701(c) (West 2015); Tex. Civ. Prac. & Rem. Code § 41.003(a) (West 2015). See also Linthicum v. Nationwide Life Ins. Co., 150 Ariz. 326, 332 (1986) (“[W]hile a plaintiff may collect compensatory damages upon proof by a preponderance of the evidence of his injuries due to the tort of another, we conclude that recovery of punitive damages should be awardable only upon clear and convincing evidence of the defendant's evil mind.”).
172 See e.g., Madison v. Ducktown Sulphur, Copper & Iron Co., 83 SW 658, 660 (Tenn. 1904) (holding two copper factories liable for polluting nearby farms despite the finding that they
Finally, even if punitive damages are imposed they may not be effective. To serve as an effective anti-dilution mechanism, punitive damages must be set at a high enough level to disgorge the actors’ benefits. Thus, in Examples 1 and 2, with 10 liable actors each could expect to gain $50 (60-100/10)—the difference between the expected private benefit of $60, and the diluted liability of the $100 damage. Punitive damages set at a magnitude of four times the injury would still allow each to expect a gain of $10 [60-(100+400)/10].

3. The Criminal Justice System. Some of the activities discussed (e.g., drag racing) may result in criminal, not just civil, proceedings. In such cases, criminal liability may serve as an effective anti-dilution liability that may deter the parties. Still, as an empirical matter, it is likely that in many cases the actors will not be subject to criminal liability. This could be because of the heightened standard of proof required in criminal proceedings, due to prosecutorial discretion, lack of adequate resources, or because the tortious act is not subject to criminal liability.

4. The “tort” v. the “tract”. One may attack the “tract” in tort-tract. The argument could be that a tort-tract is not a contract because it does not let parties specify their obligations. Rather, tort law imposes the obligations on them. The distinction is incomplete. It is true that a contract is usually an agreement by the parties for the parties, whereas a tort-tract is an arrangement that is offered by tort law. However, in both, manifestation of mutual assent is a key element. A tort-tract is simply a default take-it-or-leave-it arrangement just like a boilerplate contract is. The major difference is that a tort-tract is offered by tort law (hence the term “arrangement”). And just like any boilerplate agreement, it becomes binding only if the parties agree to adopt its terms.

The contractual nature of tort-tracts is also evident by the fact that courts treat them as such. They first attempt to determine whether there was an agreement and what was actually agreed. When the non-injuring party agreed to a reckless drive under the influence of alcohol, courts impose liability on all. Each party is held to her tort-tracular commitment to share the cost of the tortious enterprise (e.g., Cooper). The same is true if a party agreed to drive carelessly but then drove carefully (e.g., Bierczynski and Lemons). In contrast, if a party agreed to careless but not reckless behavior, she would be exempted from liability (e.g., Dunfee, Keith and Bogle).

“conduct[ed] their business in a lawful way, without any purpose or desire to injure any of the complainants; that they... pursu[ed] the... only method known to the business or to science by means of which copper ore of the character mined by the defendants can be reduced; that the defendants have made every effort to get rid of the smoke and noxious vapors, one of the defendants having spent $200,000 in experiments to this end, but without result.”). See also Dillbary, supra note 11 at 972.

173 Dillbary, supra note 82, Part IV.C.
174 See supra note 64 and accompanying text.
175 See supra notes 59-63 and accompanying text.
176 See supra Parts II.A.2 and II.A.3.
177 See supra notes 51-58, 66-70 and accompanying text.
5. Solvency. Another concern could be that the possibility of insolvency of one or some of the actors would chill tort-tracting. The concern is unfounded for at least two reasons. First, some states switched from joint and several liability (JSL) to several liability (SL) thereby protecting injurers from risks of insolvency by their associates. Second, even in those states that still apply the old common law rule of JSL, each party decides who to tort-tract with. A risk averse tort-tractor may only want to tort-tract with individuals or entities she believes to be solvent, perhaps because she is familiar with them. Others may be more adventurous and assume the risk of tort-tracting with a stranger. The point is that each tort-tractor makes her own choices.

6. Apportionment. Others may have concerns about the assumption in the examples that the damage is apportioned in equal shares between the tort-tractors. The claim could be that a jury may apportion one actor (e.g., the injuring driver in a drag race) more liability than others (e.g., the non-injuring actors). This is true, but it is also irrelevant. To determine what the parties will do we have to test their incentives at the time they decided to enter into a tort-tract. For example, in Example 2 (drag racing) the jury may decide to assign 10% of the fault to D1 and 90% to D2 or vice versa. But ex-ante this does not matter. When the parties consider whether to engage in the activity each has a 50% chance to be the one who pays 10% of the damage and a 50% chance to be the one who pays 90% of the damage, for an expected liability of $50 (50%×10%×100+50%×90%×100). More generally, it is possible to show that regardless of the apportionment of fault or the apportionment regime (whether it is JSL with or without contribution or SL), ex-ante each actor has an expected liability of D/n, where D is the damage and n is the number of tortfeasors.178

7. The efficiency-morality debate. A major question is whether tort-tracts—that is, agreements or commitments to engage in tortious behaviors—could be considered moral and whether they are (or always are) efficient. The question is both theoretical and empirical. In order to focus on what the law does, this article sidestepped the efficiency-morality debate. Its goal is to highlight a phenomenon and spark a debate. Those who believe tort-tracts are immoral or for other reasons unacceptable would want to change the law, increase the use and efficacy of anti-dilution mechanisms (e.g. punitive damages) or increase the role of the criminal justice system.

Still, the article contributes to this debate in a few ways. First, it explicitly admits that, in some cases, tort-tracts can lead to inefficient results. It also acknowledges that even when they are welfare-enhancing other mechanisms (such as regulation) may achieve the same benefits at a lower cost and as such should be preferable. Second, to help frame the debate the article identifies three categories of tort-tracts. Example 1 and its variants (publishing a statement that is known to be false) deal with tort-tracts that are aimed at achieving a tortious result: harming a third party. Example 2 and its variants (drag racing) focus on activities (not results) in which the parties are interested but society seems to

178 See supra note 10 and accompanying text.
condemn. Finally, Example 3 and its variants focus on activities that society accepts (e.g., camping), often invites (e.g., farming), and may even be faultless (e.g., the production of necessary goods subject to strict liability). Third, by using the same methodology across categories the article shows how currently, tort law treats all categories the same: in each the law dilutes the parties’ liability and protects the injurers’ ex-ante expectations, although in varying degrees. In doing so, tort law respects the tortfeasors’ subjective valuations. It even gives these private valuations precedence over what is often described as the victim’s “right” to be free of harm. By revealing the similarities between the law’s treatments, this article seeks to invigorate the debate.

Finally, it is important to note that efficiency considerations should include long-term impact and third party effects. For example, in Example 2 the total benefits to the parties from a race outweigh, at least initially, the cost to the victim (60x2>100). But one should also consider the fact that the law probably leads to over-investment in precaution and over investment in capital. It likely also results in discrimination against minorities whose income is, on average, lower than other groups.\footnote{See supra note 155.}

V. CONCLUSION

In many cases actors will not participate in tortious activity unless others pre-commit to do the same or share its costs. Contract law refuses to help such actors. It will not enforce an agreement to commit or induce a tort. This article shows that tort law fills some of that gap. Tort law allows parties to easily enter into tortious engagements. Tort law does so by offering the parties a default arrangement—a tort-tract. The arrangement includes opt-in and opt-out rules, cost-sharing mechanisms, and cross-claims waivers. It is even designed to curb strategic behavior by those who promised to behave carelessly and then act differently. The result is that the actors do not need to negotiate, devise or draft the terms that would regulate their behavior. Instead of contracting they can tort-tract—that is, adopt tort law’s arrangement.

Tort law even goes a step further and facilitates “tort-tracting”—the act of agreeing, or pre-committing, to engage in or sponsor a wrongdoing. In low transaction cost settings, this can be done if the parties actually agree to accept tort law’s default arrangement. For example, in cases like Jones, a number of drivers and 150-300 bystanders can become partners to the joint tortious enterprise by indicating their agreement (e.g., by waiving their hands). In high transaction costs settings, the parties can pre-commit to be part of a tortious enterprise by unilaterally and credibly signaling their commitment. To encourage parties to join the tortfest, tort law even allows them to “test the ground” by way of sampling. Thus, in cases like Warren and Example 3A, each polluting agent was able to initially produce and pollute on a small scale to see if others would...
follow suit, and then decide to keep polluting if others do the same, but be exempted from liability otherwise.

Finally, tort law also provides an effective enforcement mechanism. It promises a gain to the injurers—the non-breaching parties who acted *carelessly*. In contrast, it punishes the breaching parties who decided to behave carefully (*Lemons*) or behave with even less care than the parties agreed to (*Dunfee*). The result is an irony. Tort law invites, polices and enforces wrongdoing.