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# Uncertain Factual Causation in the Third Restatement: Some Comparative Notes

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**UNCERTAIN FACTUAL CAUSATION IN THE THIRD  
RESTATEMENT:  
SOME COMPARATIVE NOTES**

Ken Oliphant<sup>†</sup>

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## I. INTRODUCTION

This paper highlights aspects of the approach taken in the Restatement (Third) of Torts<sup>1</sup> (Third Restatement) to problems of uncertain factual causation, and makes some comparative observations on them from a European perspective, referring both to national legal provisions<sup>2</sup> and the two texts drafted with a view to a possible future harmonisation of tort law in Europe—specifically, the Principles of European Tort Law (PETL) and the Draft Common Frame of Reference (DCFR).<sup>3</sup> “Uncertain factual causation” here refers to cases where the evidence from which the existence of a factual causal nexus might be assessed is weak, and does not allow for inferences to be drawn either way with confidence. Depending on the standard of proof employed in the legal system in question, this may include cases where causation would currently be established. For the purposes of the analysis advanced below, it will be useful to distinguish between two situations: “alternative-defendants” and “uncertain torts.” In alternative-defendant cases, one or more of a number of wrongdoers is known to have caused the claimant’s injury, but which wrongdoer’s(s’) conduct was in fact causal is unknown. In uncertain-tort cases, one or more of the possible causes is a risk for which no wrongdoer is responsible (i.e., a risk in the victim’s sphere) so it cannot be concluded with confidence that the plaintiff was the victim of a tort at all.<sup>4</sup>

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1. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM (2010).

2. The law of the European Union regarding causation is relatively undeveloped and will not be addressed here. For more information on this subject, see Isabelle C. Durant, *Causation*, in 23 TORT LAW OF THE EUROPEAN COMMUNITY 47 (Helmut Koziol & Reiner Schulze eds., 2008).

3. See EUROPEAN GROUP ON TORT LAW, PRINCIPLES OF EUROPEAN TORT LAW: TEXT & COMMENTARY (2005) [hereinafter PETL], available at <http://www egtl.org/Principles/index.htm> (text only); STUDY GROUP ON A EUROPEAN CIVIL CODE & EUROPEAN RESEARCH GROUP ON EXISTING EUROPEAN PRIVATE LAW, PRINCIPLES, DEFINITIONS AND MODEL RULES OF EUROPEAN PRIVATE LAW: DRAFT COMMON FRAME OF REFERENCE (DCFR): FULL EDITION (Christian von Bar et al. eds., 2009) [hereinafter DCFR]. Note that the author became a member of the European Group on Tort Law in 2009, though he was not involved in the formulation or the 2005 publication of the Group’s PETL.

4. For the purposes of the present paper, it is not necessary to subdivide this category into cases of multiple possible victims of tortious conduct, where it is known that the defendant must have harmed some of the victims, but not known which ones, and cases where there is only one possible victim of the tortious conduct. For present purposes, “tortious conduct” means conduct that would give

The comparative analysis presented in this article will demonstrate that problems of uncertain factual causation afflict all legal systems, and have widely been considered to warrant the adoption of exceptional rules so as to avoid the unacceptable outcomes that would otherwise arise. Lawyers everywhere can learn useful lessons from the practical experiences of other jurisdictions in developing such approaches.

## II. UNCERTAIN FACTUAL CAUSATION IN THE THIRD RESTATEMENT

This Section will selectively highlight aspects of the Third Restatement insofar as it deals with uncertain factual causation, rather than comprehensively addressing its approach to causation as a whole. The selection of issues is designed to set the scene for and facilitate the comparative analysis in the next Section of this paper.

### A. *Factual Causation in General*

By way of preliminary to the more detailed consideration of alternative-defendants and uncertain-cause scenarios below, various aspects of the Third Restatement's general approach to factual causation may be highlighted for the purposes of comparative analysis. Dealing first with substantive law, the Third Restatement is notable for its two-stage approach to questions of causation, in which issues of "factual cause" (§§ 26–28) are separated from those of "proximate cause" or "scope of liability" (§ 29 ff). Though the two-stage approach has long been entrenched in academic textbooks and judicial decisions,<sup>5</sup> the previous Restatements took a different course, employing a single concept of "legal cause." This embraced all the various aspects of the inquiry into causality, including the "substantial factor" test, which was the practical mechanism by which causation in fact was addressed.<sup>6</sup> The Third

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rise to liability in tort if harm were to result from it, while "wrongdoer" means a person engaging in such conduct, whether it involves fault or not.

5. See RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 26 cmt. a (2010).

6. RESTATEMENT (SECOND) OF TORTS §§ 9, 431(a) (1965); RESTATEMENT (FIRST) OF TORTS §§ 9 cmt. b, 431(a) (1934). The concept of cause in fact was actually introduced into Restatement (Second) of Torts in the course of its revision in the 1970s, though only in the Comments, and in relatively narrow contexts; see RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL

Restatement also departs from the approach of the previous restatements by abandoning the language of “substantial cause” and including in its place a positive definition of factual cause: “Conduct is a factual cause of harm when the harm would not have occurred absent the conduct.”<sup>7</sup> The Third Restatement commentary suggests that the earlier restatements omitted the “but-for” standard from the black letter text, confining it to a comment, and so “lowered its profile.”<sup>8</sup> However, the Restatement (First) of Torts (First Restatement) and Restatement (Second) of Torts (Second Restatement) did include the “but-for” test in their black letter, but in a negatively—rather than positively—worded form: “the actor’s negligent conduct is not a substantial factor in bringing about harm to another if the harm would have been sustained even if the actor had not been negligent.”<sup>9</sup> The change effected in the Third Restatement is not therefore a total novelty, though it undoubtedly introduces greater clarity.

Turning to matters of evidence and proof, the Third Restatement maintains the established approach by which the burden of proving factual causation generally rests on the plaintiff and the standard of proof is the preponderance of the evidence.<sup>10</sup> By way of exception, the burden of proof is reversed in the alternative-defendants scenario considered below.

These different aspects—substantive and evidential—will be addressed in the comparative analysis in Section III. The present Section continues by addressing the approach of the Third Restatement in the two situations of uncertain factual causation

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HARM § 26 cmt. a (2010). For criticism of the “amalgam” nature of legal cause in the previous Restatements, and a plea to the reporters of the Third Restatement to “unpack” the concept so as to separate its factual and normative aspects, see Jane Stapleton, *Legal Cause: Cause-in-Fact and the Scope of Liability for Consequences*, 54 VAND. L. REV. 941 (2001).

7. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 26 (2010); see also Joseph Sanders, William C. Powers Jr. & Michael D. Green, *The Insubstantiality of the “Substantial Factor” Test for Causation*, 73 MO. L. REV. 399, 420 (2008).

8. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 26 cmt. b (2010) (referring to the Restatement (First) of Torts (1934) and Restatement (Second) of Torts (1965)); RESTATEMENT (SECOND) OF TORTS § 431 cmt. a (1965).

9. RESTATEMENT (SECOND) OF TORTS § 432(1) (1965); see RESTATEMENT (FIRST) OF TORTS § 431 cmt. a (1934).

10. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM §§ 28(a), 28 cmt. a (2010) (repeating in substance what was provided in Restatement (Second) of Torts § 433B(1)).

identified at the start of this paper, namely alternative-defendants and uncertain torts.

*B. Alternative-Defendants*

As mentioned above, a special rule providing for the reversal of the burden of proof in alternative-defendants cases was introduced in the Second Restatement,<sup>11</sup> following the well-known case of *Summers v. Tice*.<sup>12</sup> The Third Restatement maintains the burden-shifting approach, though in slightly different words; the new formulation clarifies that the burden of proof is reversed only where all persons whose tortious acts exposed the plaintiff to a risk of harm are joined as defendants:

When the plaintiff sues all of multiple actors and proves that each engaged in tortious conduct that exposed the plaintiff to a risk of harm and that the tortious conduct of one or more of them caused the plaintiff's harm but the plaintiff cannot reasonably be expected to prove which actor or actors caused the harm, the burden of proof, including both production and persuasion, on factual causation is shifted to the defendants.<sup>13</sup>

A key feature of “alternative liability,” as it is commonly known, is its retention of the traditional all-or-nothing outcome. Proportional-liability (i.e., liability measured by the proportion of the total risk that is attributable to the individual defendant) has been recognised in several states in the years after the Second Restatement under the “market-share” theory.<sup>14</sup> But market-share liability is rejected in a roughly equal number of states, and this nearly even split between jurisdictions, combined with the lack of any emerging consensus or trend, was considered to have made it

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11. RESTATEMENT (SECOND) OF TORTS § 433B(3) (1965) (“Where the conduct of two or more actors is tortious, and it is proved that harm has been caused to the plaintiff by only one of them, but there is uncertainty as to which one has caused it, the burden is upon each such actor to prove that he has not caused the harm.”).

12. *Summers v. Tice*, 199 P.2d 1 (Cal. 1948); see also *Rutherford v. Owens-Ill. Inc.*, 941 P.2d 1203 (Cal. 1997).

13. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 28(b) (2010); see also *id.* § 28 illus. 2, 6–12. To review the requirement of joinder of all defendants, see *id.* § 28 cmt. h.

14. See *Sindell v. Abbott Labs.*, 607 P.2d 924 (Cal. 1980). For consideration of the relationship between alternative-liability and market-share theories, see Mark A. Geistfeld, *The Doctrinal Unity of Alternative Liability and Market-Share Liability*, 155 U. PA. L. REV. 447 (2006).

inappropriate to include any reference to market-share liability in the black letter of the Third Restatement; it was thought preferable to leave the matter to the developing law.<sup>15</sup>

An as-yet unresolved question is whether alternative liability can be invoked by a plaintiff who was culpably engaged in conduct that exposed himself or herself to the same risk of harm, and was also therefore a possible cause of the harm. The Third Restatement explicitly takes no position on this issue, noting the absence of any significant case law addressing it.<sup>16</sup>

These two unresolved issues (market-share liability and the application of alternative liability where the claimant was also at fault) will be considered further in the comparative analysis in Section III.

### C. *Uncertain Torts*

As already noted, the plaintiff has the burden of proving factual causation by a preponderance of the evidence.<sup>17</sup> The plaintiff must satisfy the fact-finder that the defendant's tortious conduct was a more likely cause of the injury than all the other, innocent factors that might possibly have caused the injury instead.<sup>18</sup> If the fact-finder concludes that an innocent factor was more likely (or equally likely) a cause of the injury than the defendant's tortious conduct, the plaintiff will have failed to satisfy the burden of persuasion.<sup>19</sup> The Third Restatement illustrates this by reference to a case of an infant suffering from a bacterial infection who receives a routine vaccination, and shortly afterwards goes into respiratory arrest and dies.<sup>20</sup> On the assumption that either the infection or the vaccine was the cause of death, but not the two in combination, the claim brought by the infant's estate will fail unless the fact-finder concludes that the vaccine was more likely the cause than the infection.<sup>21</sup>

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15. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 28 cmt. p (2010).

16. *Id.* § 28 cmt. o.

17. *Id.* § 28 cmt. a.

18. *Id.*

19. *Id.*

20. *Id.* § 26 illus. 4–5.

21. *Id.*; *see also* *Shyface v. Sec'y of Health & Human Serv.*, 165 F.3d 1344 (Fed. Cir. 1999). The evidential difficulties may be particularly pronounced in toxic-substance cases, to which an illuminating new comment is dedicated in section 28 comment c of the Third Restatement.

The Third Restatement reveals a measure of confidence that injustices can be avoided—or at least mitigated—by a liberal approach to causal inference,<sup>22</sup> and by the reversal of the burden of proof in cases of negligence per se and failure to warn, separately from the specific provision made with respect to alternative liability.<sup>23</sup> However, it provides for no reversal of the burden of proof in ordinary “single-defendant” scenarios, the commentary noting that this is not customary judicial practice in such cases.<sup>24</sup> Whether the alternative and single-defendant situations should be distinguished so categorically is perhaps questionable. The justification for the burden-shifting entailed by alternative liability rests on the injustice of putting the “risk of error” on the innocent claimant rather than the culpable defendants, and the same injustice exists to some extent in the single-defendant scenario. But the Third Restatement prefers to rely upon a flexible approach to the drawing of inferences from the evidence: “the flexibility afforded in the standard for the burden of production on factual causation . . . enables courts to submit a case to a jury when the plaintiff has made a plausible, if ambiguous and circumstantial, case for causation.”<sup>25</sup> It is the lack of comparable flexibility in the alternative-defendant scenario—where it is impossible to infer that any particular defendant was more likely than not the cause—that justifies the exceptional reversal of the burden of proof in such cases.<sup>26</sup>

In the last thirty years, a substantial scholarly literature in the United States has argued for a different approach, namely proportional-liability, in uncertain-cause cases.<sup>27</sup> However, neither

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22. See RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 28 cmt. b reporters’ note (2010) (discussing how uncertainty can be managed through the flexibility of the line between reasonable inference and impermissible speculation).

23. *Id.*

24. *Id.* § 28 cmt. g.

25. *Id.*

26. *Id.*

27. See Richard Delgado, *Beyond Sindell: Relaxation of Cause-in-Fact Rules for Indeterminate Plaintiffs*, 70 CALIF. L. REV. 881 (1982); Daniel A. Farber, *Toxic Causation*, 71 MINN. L. REV. 1219 (1987); Joseph H. King, Jr., *Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences*, 90 YALE L.J. 1353 (1981); William M. Landes & Richard A. Posner, *Tort Law as a Regulatory Regime for Catastrophic Personal Injuries*, 13 J. LEGAL STUD. 417 (1984); Saul Levmore, *Probabilistic Recoveries, Restitution, and Recurring Wrongs*, 19 J. LEGAL STUD. 691 (1990); John Makdisi, *Proportional Liability: A Comprehensive*

the theory, nor the published work that supports it, is paid much attention in the Third Restatement; nowhere are the pros and cons of proportional-liability squarely addressed.<sup>28</sup> Instead, the Third Restatement, following the pattern of state decisions, focuses on only one species of proportional-liability approach—the award of damages for loss-of-chance.<sup>29</sup> A comment correctly observes that the doctrine does not strictly entail a modification of the principles of factual causation; “rather, it reconceptualizes the harm.”<sup>30</sup> It is functionally equivalent to the recognition of other “reconceptualized harms” (e.g., spoliation of evidence) in order to sidestep difficulties of proving a causal link with what would traditionally have been regarded as the injury.<sup>31</sup> In practice, the loss-of-chance theory has been limited to cases of medical malpractice,<sup>32</sup> and the Third Restatement expressly refrains from

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*Rule to Apportion Tort Damages Based On Probability*, 67 N.C. L. REV. 1063 (1989); Glen O. Robinson, *Multiple Causation in Tort Law: Reflections on the DES Cases*, 68 VA. L. REV. 713 (1982); David Rosenberg, *The Causal Connection in Mass Exposure Cases: A ‘Public Law’ Vision of the Tort System*, 97 HARV. L. REV. 849 (1984); Christopher H. Schroeder, *Corrective Justice and Liability for Increasing Risks*, 37 UCLA L. REV. 439 (1990). It should be noted that the cited works differ considerably in specifics and in their degree of enthusiasm for proportional-liability. For criticism of proportional-liability, see Michael D. Green, *The Future of Proportional Liability: The Lessons of Toxic Substances Causation*, in EXPLORING TORT LAW 352 (M. Stuart Madden ed., 2005); David A. Fischer, *Proportional Liability: Statistical Evidence and the Probability Paradox*, 46 VAND. L. REV. 1201 (1993); Shmuel Leshem & Geoffrey P. Miller, *All-or-Nothing versus Proportionate Damages*, 38 J. LEGAL STUD. 345 (2009).

28. Some of the literature is cited in the comments and the reporters’ notes, but mostly for rather narrow propositions. For example, Levmore, *supra* note 27, is cited in RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 26 cmt. n (2010) (dealing with loss-of-chance) for an explanation of why proportional-liability provides superior deterrence in situations of recurring wrongs where the victims cannot generally satisfy the preponderance-of-the-evidence standard, but the commentary fails to note that Levmore’s argument is valid for proportional-liability generally, and not just under the loss-of-chance theory.

29. See generally David A. Fischer, *Tort Recovery for Loss of a Chance*, 36 WAKE FOREST L. REV. 605 (2001) (discussing the potential to broaden the application of the loss-of-chance theory of causation); Steven R. Koch, *Whose Loss is it Anyway? Effects of the “Lost-Chance” Doctrine on Civil Litigation and Medical Malpractice Insurance*, 88 N.C. L. REV. 595 (2010) (supporting adoption of the loss-of-chance doctrine).

30. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 26 cmt. f (2010).

31. *Id.*; see also David W. Robertson, *Causation in the Restatement (Third) of Torts: Three Arguable Mistakes*, 44 WAKE FOREST L. REV. 1007, 1012–14 (2009).

32. The reporters’ notes observe that twenty states and the District of Columbia have recognized the doctrine in medical malpractice cases, while ten states have rejected it. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL &

addressing whether there are others areas to which it might appropriately be extended, leaving this to future development.<sup>33</sup> The Third Restatement notes difficulties with the loss-of-chance analysis (e.g., the coherence of treating the loss of the chance as harm is a claim that can only be brought if, and when, the physical injury occurs),<sup>34</sup> but does not consider whether and to what extent such difficulties could be avoided by reliance on theories of proportional-liability that do not involve a reconceptualization of the damage.

The comparative analysis below (Section III) will address the various approaches that have been adopted in European systems to deal with uncertain torts, including not just the reversal of the burden of proof and the award of damages for loss-of-chance, but also the introduction of proportional-liability by way of modification to the orthodox rules of factual causation rather than reconceptualization of what constitutes actionable harm.

### III. COMPARATIVE OBSERVATIONS ON UNCERTAIN FACTUAL CAUSATION<sup>35</sup>

#### A. *Factual Causation in General*

As in Section II above, it will be useful to preface discussion of alternative-defendants and uncertain torts with some general observations about uncertain factual causation in European systems. First, as a matter of substantive law, all European systems recognize a requirement that the tortious conduct should be a *conditio sine qua non* of the plaintiff's injury,<sup>36</sup> though it appears that

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EMOTIONAL HARM § 26 reporters' note (2010) (citing *Matsuyama v. Birnbaum*, 890 N.E.2d 819, 828 n. 23 (Mass. 2008)).

33. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM § 26 cmt. n (2010). The same comment notes:

Without limits, this reform is of potentially enormous scope, implicating a large swath of tortious conduct in which there is uncertainty about factual cause, including failures to warn, to provide rescue or safety equipment, and otherwise to take precautions to protect a person from a risk of harm that exists.

*Id.*

34. *Id.*

35. As to the general approach of European systems to uncertain factual causes, see WALTER VAN GERVEN, JEREMY LEVER & PIERRE LAROCHE, CASES, MATERIALS AND TEXT ON NATIONAL, SUPRANATIONAL AND INTERNATIONAL TORT LAW § 4.2 (2000), and CEES VAN DAM, EUROPEAN TORT LAW 281–90 (2006).

36. Reinhard Zimmermann, *Conditio Sine Qua Non in General: Comparative*

nowhere is this formally laid down by way of legislative definition;<sup>37</sup> in some systems it may be regarded as too self-evident to require discussion.<sup>38</sup> By contrast, the Principles of European Tort Law (PETL) propose a formal definition reminiscent of that in the Third Restatement, section 26:

Art. 3:101. *Conditio sine qua non*

An activity or conduct (hereinafter activity) is a cause of the victim's damage if, in the absence of the activity, the damage would not have occurred.<sup>39</sup>

Like most European systems,<sup>40</sup> the PETL clearly distinguish this factual issue from the normative question of the scope of liability for consequences, variously referred to by such terms as "remoteness of damage" (in common law systems) or "adequacy" (especially in the Germanic systems). In fact, the PETL treat every *conditio sine qua non* as a cause, and deal separately with restrictions on the scope of liability for consequences.<sup>41</sup> This approach chimes with that adopted in the Third Restatement, and seems conducive to greater clarity of analysis than is possible when these separate issues are lumped together under a single notion.<sup>42</sup>

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*Report, in* 1 ESSENTIAL CASES ON NATURAL CAUSATION, DIGEST OF EUROPEAN TORT LAW § 1/29 para. 1 (Bénédict Winiger, Helmut Koziol, Bernhard A. Koch & Reinhard Zimmermann eds., 2007) [hereinafter DIGEST: NATURAL CAUSATION]. In the common law systems, the "but for" test is applied:

If you can say that the damage would not have happened but for a particular fault, then that fault is in fact a cause of the damage; but if you can say that the damage would have happened just the same, fault or no fault, then the fault is not a cause of the damage.

*Cork v. Kirby Maclean Ltd.*, [1952] 2 All E.R. 402 (C.A.) 407 (Denning LJ) (U.K.); see also *Hotson v. East Berkshire Area Health Authority*, [1987] A.C. 750 (H.L.) 788 (Lord Mackay) (U.K.). The continental systems do not use the "but for" formulation, but the test of a *conditio sine qua non* is essentially the same: "the difference is merely one of terminology, not one of substance." DIGEST: NATURAL CAUSATION, *supra*, § 1/29 para. 1.

37. DCFR, *supra* note 3, art. 4:101 cmt. 3.

38. DIGEST: NATURAL CAUSATION, *supra* note 36, § 1/29 para. 2.

39. PETL, *supra* note 3, art. 3:101.

40. See VAN DAM, *supra* note 35, at 270, 275. France and some other systems remain resistant to systematic attempts to distinguish different causal concepts and a largely intuitive approach is said to prevail; see the classic article by P. Esmein, *Le Nez De Cléopâtre Ou Les Affres De La Causalité*, D. 1964, I, 205.

41. PETL, *supra* note 3, art. 3:201.

42. As with the notion of "legal cause" in the First and Second Restatements, and as under article 4:101(1) of the DCFR, which provides: "A person causes legally relevant damage to another if the damage is to be regarded as a consequence of: (a) that person's conduct; or (b) a source of danger for which that person is responsible." This definition is somewhat circular, but insofar as it

Secondly, like other elements of the claim, the claimant must normally prove factual causation. The standard of proof,<sup>43</sup> however, varies considerably among systems, and in many jurisdictions a standard that is apparently<sup>44</sup> more onerous than the common law's balance of probabilities or preponderance of the evidence<sup>45</sup> is applied. In France,<sup>46</sup> the evaluation of factual evidence falls within the "sovereign discretion" (*appreciation souveraine*) of the judges of first instance. Formally, proof of facts is subject to rather rigorous requirements. In civil matters, the judge can generally consider a fact to be established only insofar as its existence has been shown by one of the methods of proof fixed by law, namely, written evidence, oral testimony, presumptions, confession or oath.<sup>47</sup> In the present context, proof by way of presumption is of greatest significance: in the absence of any presumption arising by operation of law, the judge must be personally convinced of the existence of a "certain and direct" causal connection<sup>48</sup> on the basis of serious, precise and concurrent presumptions (*présomptions*

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avoids circularity it seems to focus on the normative question of the scope of the consequences for which liability can fairly be attributed to the defendant—through the formulation "if the damage is to be regarded as a consequence"—and makes no mention at all of the (factual) *sine qua non* standard. DCFR, *supra* note 3, art. 4:101(1).

43. See Ivo Giesen, *The Burden of Proof and Other Procedural Devices in Tort Law*, in EUROPEAN TORT LAW 2008, at 49, 53–55 (Helmut Koziol & Barbara C. Steininger eds., 2009); Vibe Ulfbeck & Marie-Louise Holle, *Tort Law and Burden of Proof—Comparative Aspects. A Special Case for Enterprise Liability?*, in EUROPEAN TORT LAW 2008, *supra*, at 26, 28–29. See generally Kevin M. Clermont & Emily Sherwin, *A Comparative View of Standards of Proof*, 50 AM. J. COMP. L. 243 (2002) (chronicling the difference between standards of proof in civil versus common law jurisdictions); Kevin M. Clermont, *Standards of Proof Revisited*, 33 VT. L. REV. 469 (2009) (discussing application of standards of proof to evidence) [hereinafter Clermont, *Standards of Proof Revisited*]; Christoph Engel, *Preponderance of the Evidence Versus Intime Conviction: A Behavioral Perspective on a Conflict Between American and Continental European Law*, 33 VT. L. REV. 435 (2009) (explaining the distinctions between American and Continental law); Michele Taruffo, *Rethinking the Standards of Proof*, 51 AM. J. COMP. L. 659 (2003) (critiquing Clermont and Sherwin's article).

44. For an argument that the difference between the approaches is more apparent than real, see Richard W. Wright, *Proving Facts: Belief Versus Probability*, in EUROPEAN TORT LAW 2008, *supra* note 43, at 79.

45. For statements of this standard in English law, see *Morgan v. Sim*, (1857) 14 Eng. Rep. 712 (P.C.); *Miller v. Minister of Pensions*, [1947] 2 All E.R. 372 (K.B.) 374 (Denning J.).

46. See generally Clermont & Sherwin, *supra* note 43, at 247–51; LARA KHOURY, UNCERTAIN CAUSATION IN MEDICAL LIABILITY 37–38 (2006).

47. Claude Giverdon, *The Problem of Proof in French Civil Law*, 31 TUL. L. REV. 29, 31–32 (1956) (citing CODE CIVIL [C. CIV.] art. 1316).

48. VAN DAM, *supra* note 35, at 278.

*graves, précises et concordantes*) drawn from known facts.<sup>49</sup> Notwithstanding the apparent stringency of these requirements, the judge's sovereign discretion gives considerable scope for a relatively relaxed approach to the inference of causal connections in practice.<sup>50</sup> German law also provides for free evaluation of the evidence (*freie Beweiswürdigung*) by the judge possessed of the case.<sup>51</sup> The court must decide on the basis of its full conviction (*nach freier Überzeugung*) whether every alleged fact is true or untrue, and this cannot be reduced to a mere assessment of probabilities: even a very high probability in the veracity of the factual allegations will not be enough if the judge remains in substantial doubt.<sup>52</sup> The impression therefore remains that this is a more exacting standard than the common law's preponderance of probabilities.

In fact, at one level it is impossible to compare the approaches to proof of common law and civil law systems, as proof is conceptualized in radically different ways: whereas the common law aspires to objectivity through express reliance on probabilities, civilian systems understand proof as a strictly subjective impression in the mind of the trier of fact.<sup>53</sup> Ultimately, the importance of the difference between the verbal formulations employed may lie in their psychological impact on the fact-finder:<sup>54</sup> the requirement of a conviction in the truth of the alleged fact predisposes the fact-finder to be less tolerant of erroneous findings of liability (false positives) than erroneous exculpations (false negatives), and such standards tilt the playing field against plaintiffs as the parties typically bearing the burden of proof.<sup>55</sup> Cutting against this, however, is the sovereign discretion or free evaluation which civilian systems delegate to the trier of fact and the way in which recourse to the judge's personal conviction acts as "a sort of black box," allowing judges to act according to their conscience without

49. CODE CIVIL [C. CIV.] art. 1353; *see* KHOURY, *supra* note 46, at 43–45.

50. KHOURY, *supra* note 46, at 37–38.

51. ZIVILPROZESSORDNUNG [ZPO] [CODE OF CIVIL PROCEDURE] Jan. 30, 1877, BUNDESGESETZBLATT [BGBl. 1], as amended, § 286.

52. Bundesgerichtshof [BGH] [Federal Court of Justice] Feb. 17, 1970, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 946, 1970; *see also* MARC STAUCH, THE LAW OF MEDICAL NEGLIGENCE IN ENGLAND AND GERMANY: A COMPARATIVE ANALYSIS 65 (2008) (citing the example of section 286 of the Code of Civil Procedure); Engel, *supra* note 43, at 440–41; *cf.* Taruffo, *supra* note 43, at 667–68.

53. Engel, *supra* note 43, at 436. For criticism of the cogency of this distinction, *see* Clermont, *Standards of Proof Revisited*, *supra* note 43, at 477–86.

54. Engel, *supra* note 43, at 436, 448–67.

55. Clermont, *Standards of Proof Revisited*, *supra* note 43, at 476, 485–86.

having to explain the reasons supporting their decision.<sup>56</sup> An obvious parallel exists here with the role of the jury under American civil procedure.

### B. *Alternative-Defendants*

Compared with the Second and Third Restatements, many European jurisdictions include specific provisions in their civil codes to deal with alternative-defendant cases. The German Civil Code may be cited as representative:<sup>57</sup> “[i]f more than one person has caused damage by a jointly committed tort, then each of them is responsible for the damage. The same applies if it cannot be established which of several persons involved caused the damage by his act.”

The first sentence of the code deals with joint tortfeasors. The second allows for liability in an alternative-defendant case where each of a number of wrongdoers acted tortiously and there is no doubt that at least one of them caused the claimant’s harm, but it cannot be established which of them, singly or jointly, actually caused the harm. It applies where the wrongdoers act independently, since otherwise the case would fall within the first sentence dealing with joint torts.<sup>58</sup> The effect of the provision is to reverse the burden of proof: once the plaintiff has proved that the

56. Taruffo, *supra* note 43, at 667. Taruffo posits that French law offers considerably greater scope for this than German law. *Id.* at 667–68.

57. BÜRGERLICHES GESETZBUCH [BGB] [CIVIL CODE], Aug. 18, 1896, REICHSGESETZBLATT [RGL. 1] at 195, in the revised version of Jan. 2, 2002, BUNDESGESETZBLATT [BGBl. 1] at 42, as amended, § 830, para. 1 (Ger.), *available at* [http://bundesrecht.juris.de/englisch\\_bgb/englisch\\_bgb.html#BGBengl\\_000P830](http://bundesrecht.juris.de/englisch_bgb/englisch_bgb.html#BGBengl_000P830) (last visited Jan. 24, 2011). In addition to Germany, see also Volaögusseadus [Law of Obligations], § 138(1) (Est.), *available at* <https://www.riigiteataja.ee/akt/121122010034#para141> (last visited Apr. 2, 2011); ASTIKOS KODIKAS [A.K.] [CIVIL CODE] 2:926 (Greece) (second sentence); Burgerlijk Wetboek [BW] [Civil Code] § 6:99 (Neth.), *available at* <http://www.wetboek-online.nl/wet/Burgerlijk%20Wetboek%20Boek%206/99.html> (last visited Jan. 21, 2011); Zakonik [OZ] § 186(3) (Slovn.), *available at* <http://www.dz-rs.si/index.php?id=101> (last visited Jan. 24, 2011). The BGB’s influence in China is evident in a comparable provision in the Tort Law of the People’s Republic of China. See 民法 [Civil Law] (promulgated by the Standing Comm. Nat’l People’s Cong., Dec. 26, 2009, effective July 1, 2010) § 10, *available at* 2009 China Law LEXIS 668. Although Austria has no comparable provision in its civil code, Austrian law has reached the same result by a process of analogical reasoning. See *infra* note 141 and accompanying text.

58. Bundesgerichtshof [BGH] [Federal Court of Justice] Oct. 1, 1957, ENTSCHEIDUNGEN DES BUNDESGERICHTSHOFES IN ZIVILSACHEN [BGHZ] 25 (271) (Ger.). English extracts may be found in VAN GERVEN ET AL., *supra* note 35, § 4.G.43.

defendant was one of a group of (independent) wrongdoers and *may have* caused the damage, it is for the defendant to prove that he or she did not in fact do so. The liability, where it results, is solidary.<sup>59</sup> A simple example is where two children were throwing stones, one of which hit the victim in the eye, and it was not known which child threw the stone in question.<sup>60</sup> The German provision is construed relatively narrowly, and excludes, for example, cases where there is a possibility that the harm may have been caused by the victim's own act or may have come from an innocent source.<sup>61</sup>

France and the French-inspired systems (notably Belgium and Spain) have no equivalent provision in their civil codes and take a different approach, circumventing the difficulty of providing causation by relying on principles of attribution of responsibility for the acts of another person on the basis of common activity. For example, in some systems, children playing together and throwing stones have been found to have jointly engaged in a dangerous activity causing injury, and held liable on a joint and several basis even though it could not be shown whose stone had struck the victim.<sup>62</sup> A related liability is based on the collective guardianship of things (*garde collective*) in respect of which strict liability arises in France under Art. 1384 of the *Code civil*.<sup>63</sup> The classic hunters case is solved by reasoning that the hunters have collective control of the guns and bullets from which the "guilty" bullet came.<sup>64</sup> As

59. CIVIL CODE [BGB], *supra* note 57, § 840 (Ger.).

60. RECHTSPRECHUNG DER OBERLANDESGERICHE IN ZIVILSACHEN [OLGZ] [Higher Regional Court of Justice] July 13, 1950, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 951, 2008 (Ger.).

61. Gerhard Wagner, *Aggregation and Divisibility of Damage in Germany: Tort Law and Insurance*, in AGGREGATION AND DIVISIBILITY OF DAMAGE 195 (Ken Oliphant ed., 2009).

62. In France, see Cour de cassation [Cass.] [supreme court for judicial matters], 2e civ., Mar. 8, 1968, Bull. civ. II, No. 76 (Fr.); in Belgium, see I. Durant, *Damage Caused by Less Than All Possibly Harmful Events Outside the Victim's Sphere: Belgium*, in DIGEST: NATURAL CAUSATION, *supra* note 36, § 6a/7 (citing Hof van Beroep [HvB] [Court of Appeal] Bruxelles, Dec. 23, 1927, REVUE GÉNÉRALE DES ASSURANCES ET DES RESPONSABILITÉS [RGAR] 1928, 227 (Belg.)); in Spain, see J. Ribot & A. Ruda, *Damage Caused by Less Than All Possibly Harmful Events Outside the Victim's Sphere: Spain*, in DIGEST: NATURAL CAUSATION, *supra* note 36, § 6a/10 (citing S.T.S., Feb. 8, 1983 (R.J., p. 867) (Spain); S.T.S., July 8, 1988 (R.J., p. 5681) (Spain)).

63. See generally G. VINEY & P. JOURDAIN, *TRAITÉ DE DROIT CIVIL: LES CONDITIONS DE LA RESPONSABILITÉ* § 366 (2nd ed., 2003).

64. Cour de cassation [Cass.] [supreme court for judicial matters], 2e civ., Mar. 13, 1975, Bull. civ. II, No. 88 (Fr.), available at <http://www.legifrance.gouv.fr/affichJuriJudi.do?oldAction=rechJuriJudi&idTexte=JURITEXT000006993731&fas>

under the code provisions cited above, the effect is to create a presumption of causation against multiple possible defendants, even when proof of individual causation is impossible. But the common-activity and collective-guardianship approaches are necessarily limited in scope, because they generally require an element of geographical and/or temporal proximity, so liability does not arise in the hunters scenario where the two hunters were standing some distance apart and fired quite separate rounds of shot.<sup>65</sup>

English law has never had a hunters case, and came to address the liability of alternative-defendants relatively late in the day. In 2002, in *Fairchild v. Glenhaven Funeral Services*,<sup>66</sup> the House of Lords was faced with a case of mesothelioma from occupational exposure to asbestos. The defendants were the employers<sup>67</sup> responsible for the exposure at various times. Because of mesothelioma's long latency period and scientific uncertainty about its aetiology, it could not be proved on the balance of probabilities that any particular defendant had caused an individual victim's condition.<sup>68</sup> The Law Lords nevertheless found all the defendants liable on the basis of their material contribution through their tortious conduct to the risk of the cancer.<sup>69</sup> They considered that the injustice of imposing liability on a defendant without proof that he had caused the claimant's injury was "heavily outweighed by the injustice of denying redress to a victim" who had undoubtedly been injured by the materialisation of a risk to which each defendant had wrongfully contributed.<sup>70</sup> Further, an insistence on an orthodox

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tReqId=945665717&fastPos=1 (last visited Jan. 24, 2011), cited in O. Moréteau & C. Pellerin-Rugliano, *Damage Caused by Less Than All Possibly Harmful Events Outside the Victim's Sphere: France*, in DIGEST: NATURAL CAUSATION, *supra* note 36, § 6a/6.

65. Cour de cassation [Cass.] [supreme court for judicial matters], Jan. 14, 1971, J.C.P. 1971, II, 16733 (Fr.). See also Cour de cassation [Cass.] [supreme court for judicial matters] 1e civ., Sept. 24, 2009, Bull. civ. I, No. 187 (Fr.) for a recent application of this jurisprudence to a DES claim.

66. [2002] UKHL 22, [2003] 1 A.C. 32. This summary draws upon Ken Oliphant, *England and Wales*, in EUROPEAN TORT LAW 2002, at 144 (Helmut Koziol & Barbara C. Steininger eds., 2003).

67. It should be noted that English law has no system of workers' compensation and freely allows injury claims against one's employer under the ordinary law of tort.

68. See *Fairchild*, [2002] UKHL 22, [2003] 1 A.C. [124] (Lord Rodger).

69. See *id.* at [34] (Lord Bingham), [36] (Lord Nicholls).

70. *Id.* at [33] (Lord Bingham); see also *id.* at [39] (Lord Nicholls) ("The unattractive consequence, that one of the hunters will be held liable for an injury he did not in fact inflict, is outweighed by the even less attractive alternative, that

causal connection would “empty the [defendant’s] duty of content”<sup>71</sup> by allowing him or her in many circumstances to expose others unlawfully to risk without any fear of tortious liability. The Law Lords viewed the resulting liability as exceptional, and subjected it to various limitations to keep its scope in check—for example, that the risk to which each defendant tortiously exposed the claimant must involve the same or at least a similar causative agency.<sup>72</sup>

Four years later, the House of Lords was invited to decide two questions not resolved in the *Fairchild* case: whether liability might arise under the *Fairchild* principle when part of the worker’s exposure to asbestos was during a period in which he or she was self-employed, and so responsible for part of the risk, and the appropriate quantum of each defendant’s liability under the principle.<sup>73</sup> In *Barker v. Corus UK Ltd.*,<sup>74</sup> which—like *Fairchild*—was a case of mesothelioma from occupational exposure to asbestos, the Law Lords unanimously confirmed the application of the *Fairchild* principle even where part of the exposure was attributable to the victim. On the quantum of liability, the Law Lords ruled that—in all cases under the *Fairchild* rule, and not just where the victim had contributed to the risk—each defendant’s liability should be proportional to his or her contribution to the risk, and not joint and several liability in the full amount of the claimant’s loss.<sup>75</sup>

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the innocent plaintiff should receive no recompense even though one of the negligent hunters injured him.”); *id.* at [155] (Lord Rodger) (“In these circumstances, one might think, in dubio the law should favour the claimants.”).

71. *Id.* at [62] (Lord Hoffmann); *see also id.* at [155] (Lord Rodger) (stating that “if the law did indeed impose a standard of proof that no pursuer could ever satisfy, then . . . employers could with impunity negligently expose their workmen to the risk of dermatitis—or, far worse, of mesothelioma.”).

72. *Id.* at [170] (Lord Rodger) (“the same agency . . . [or] an agency that operated in substantially the same way”). At paragraph 72, Lord Hoffmann stated that there was “not . . . a principled distinction” between same agency and multi-agency cases, but he later accepted that this was a minority opinion and wrong, and that the alternative causal agents must operate in the same way. *Barker v. Corus UK Ltd.*, [2006] UKHL 20, [2006] 2 A.C. 572 [23]. For this reason, he did not think that the exception applied when the “claimant suffer[ed] lung cancer which may have been caused by exposure to asbestos or some other carcinogenic matter but may also have been caused by smoking and it [could not] be proved which [was] more likely to have been the causative agent.” *Id.* at [24].

73. *Barker*, [2006] UKHL 20, [2006] 2 A.C. 572.

74. *Id.* This summary draws upon Ken Oliphant, *England and Wales, in EUROPEAN TORT LAW 2006*, at 162 (Helmut Koziol & Barbara C. Steininger eds., 2008).

75. Lord Rodger (dissenting) would have imposed full joint and several

Although the balance of justice and injustice fell in favour of allowing the claimant some remedy, this did not mean that the injustice to the defendant was negligible. Proportional-liability was a way to “smooth the roughness of the justice” which would otherwise result.<sup>76</sup>

That was not, however, the end of the story, as the decision provoked an immediate outcry from the labour movement, and within a matter of weeks Parliament had intervened to restore joint and several liability by way of the Compensation Act 2006.<sup>77</sup> The reinstated solitary liability is limited to mesothelioma cases.<sup>78</sup> In theory, proportional-liability remains the rule in all other cases under the *Fairchild* principle, but the Act has made it the (likely to be rare) exception in practice.

Both the European harmonisation projects—the PETL and the DCFR—would also impose liability in alternative-defendant cases, though they differ in the quantum of liability imposed on individual defendants. The DCFR contains a provision rather similar to section 830(1) of the German Civil Code, with a rebuttable presumption of (factual) causation “[w]here legally relevant damage may have been caused by any one or more of a number of occurrences for which different persons are accountable and it is established that the damage was caused by one of these occurrences but not which one . . . .”<sup>79</sup> As in Germany, each defendant’s liability is joint and several in the full amount of the plaintiff’s loss. By contrast, the PETL propose a proportional

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liability. *Barker*, [2006] UKHL 20, [2006] 2 A.C. 572, [91].

76. *Id.* at [43] (Lord Hoffmann).

77. Compensation Act, 2006, c. 29, § 3 (U.K.). A responsible person has a joint and several liability for mesothelioma suffered by a victim if four conditions are satisfied:

(a) a person (“the responsible person”) has negligently or in breach of statutory duty caused or permitted another person (“the victim”) to be exposed to asbestos, (b) the victim has contracted mesothelioma as a result of exposure to asbestos, (c) because of the nature of mesothelioma and the state of medical science, it is not possible to determine with certainty whether it was the exposure mentioned in paragraph (a) or another exposure which caused the victim to become ill, and (d) the responsible person is liable in tort, by virtue of the exposure mentioned in paragraph (a), in connection with damage caused to the victim by the disease (whether by reason of having materially increased a risk or for any other reason).

*Id.* § 3(1). A deduction for contributory negligence may be made if the victim was culpably responsible for any part of the exposure. *Id.* §3(3)(b).

78. *See id.* § 3(1).

79. DCFR, *supra* note 3, art. 4:103.

outcome in such cases:

In case of multiple activities, where each of them alone would have been sufficient to cause the damage, but it remains uncertain which one in fact caused it, each activity is regarded as a cause to the extent corresponding to the likelihood that it may have caused the victim's damage.<sup>80</sup>

This remains as yet a minority approach in Europe, where even the theory of market-share liability has yet to gain a foothold. Indeed, when market-share liability was urged on the Dutch Supreme Court in the course of the worldwide DES litigation, it was decisively rejected, the Court preferring to reverse the burden of proof and to impose joint and several liability as a market-share approach leaving the victims, not the producers, with the risk that a producer might be insolvent or untraceable, or have ceased to exist.<sup>81</sup> The controversy attending the application of proportional-liability in alternative-defendant cases is also clearly demonstrated by the rapid parliamentary intervention following the English House of Lords' adoption of proportional-liability in its *Barker* decision of 2006.<sup>82</sup> Nevertheless, it is hard to dispute the argument of the PETL's framers that there are "no compelling reason[s] to justify why someone should pay for the whole of a loss which he possibly . . . did not bring about[.]" while "[o]n the other hand, it would be harsh to leave the victim empty-handed."<sup>83</sup>

As to the case where the plaintiff culpably contributes to the risk, the European systems do not speak with a single voice. As noted above, the victim's contribution to the risk of harm does not prevent liability arising in English law, or under the PETL, but it is fatal to a claim in German law. A strong argument in favour of liability in such a case is that the plaintiff's contribution, if proved, does not (where comparative negligence is the rule, as is universal in Europe) prevent another person from being liable, albeit for only a portion of the loss; so why should the plaintiff be denied a claim altogether when his or her contribution is uncertain?<sup>84</sup>

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80. PETL, *supra* note 3, art. 3:103(1).

81. Hoge Raad, 9 October 1992, NJ 1994, 535, *noted in* W.H. van Boom & I. Giesen, *Damage Caused by Less Than All Possibly Harmful Events Outside the Victim's Sphere: Netherlands*, in DIGEST: NATURAL CAUSATION, *supra* note 36, § 6a/8; English extracts may be found in VAN GERVEN ET AL., *supra* note 35, § 4.NL.44.

82. *Barker*, [2006] UKHL 20, [2006] 2 A.C. [91].

83. PETL, *supra* note 3, art. 3:103, cmt. 3.

84. This was one of the arguments for introducing proportional-liability in

### C. *Uncertain Torts*

Where American courts, through adoption of market-share liability, have arguably been more creative than their European equivalents in dealing with the challenges of alternative-defendant cases, the roles are perhaps reversed in the uncertain-tort scenario. European systems have developed a range of approaches to ensure deserving plaintiffs are not defeated by rigid adherence to traditional rules. Such developments include approaches that are also found in the United States—especially the reversal of the burden of proof and damages for loss-of-chance—as well as the comparatively new theory of proportional-liability effected through a modification of the orthodox rules of factual causation, rather than by a re-conceptualization of the harm. These three devices—reversal of the burden of proof, damages for loss-of-chance, and proportional-liability—will now be considered in turn.

#### 1. *Reversal of the Burden of Proof*

Several European systems provide, in limited circumstances, for a reversal of the normal burden of proof, or some functionally equivalent relaxation of the normal requirements of proof, to transfer the risk of uncertain causation from the innocent plaintiff to the guilty defendant.

In Germany, the burden of proof may be reversed in a number of specific circumstances, including where there is a violation of a protective statute (*Schutzgesetz*) or breach of a judicially-recognized safety duty (*Verkehrspflicht*) and the harm is one that the duty was designed to guard against.<sup>85</sup> The most significant application of the technique is in claims of medical malpractice where gross negligence is established.<sup>86</sup> In such cases,

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Austrian law. See *infra* Part III.C.3.b.

85. For a short overview in English, see VAN DAM, *supra* note 35, at 281–83.

86. See, e.g., R. Zimmerman & J. Kleinschmidt, *Loss of a Chance: Germany*, in DIGEST: NATURAL CAUSATION, *supra* note 36, at 548–49 (citing Bundesgerichtshof [BGH] [Federal Court of Justice] June 11, 1968, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 2291, 1968 (Ger.)). For a general discussion, see Gottfried Schiemann, *Problems of Causation in the Liability for Medical Malpractice in German Law*, in CAUSATION IN LAW 187, 187–98 (Luboš Tichý ed., 2007); see also STAUCH, *supra* note 52, at 87–92 (“[T]he most significant development in the proof of treatment malpractice cases has occurred with respect to *gross* treatment errors . . . . Indeed, this comprises one of the most original and defining features of German medical malpractice law overall.”). The mistake must not be one that even a careful and conscientious doctor might make on occasion, but one that the doctor

it is enough that the doctor creates or adds more than a minimal risk of harm, even if this is considerably smaller than the risk from alternative (innocent) factors. For example, in the leading case liability was imposed for misdiagnosis even though, according to experts, there was only a ten percent chance that proper treatment would have prevented the ensuing disability.<sup>87</sup> It should be recalled that proof in German law requires the judge's full conviction that the factual matters alleged are true, and if material doubt remains, it is not enough that they are probably true.<sup>88</sup>

In France, a similar outcome can be achieved through the courts' reliance upon evidential presumptions. It has been suggested that these presumptions play an especially large role in French civil law in order to compensate for the "fact avoidance" that is a characteristic feature of French civil procedure,<sup>89</sup> as evident in its preference for written proofs and its general reluctance to order discovery (i.e. the disclosure of evidence).<sup>90</sup> According to the *Code civil*, the term refers to the drawing of inferences from what is known as to what is unknown.<sup>91</sup> It applies both to the (frequently irrebuttable) presumptions of law laid down by statute<sup>92</sup> or established by the *Cour de cassation*, and the commonsense presumptions of fact made by the courts in the exercise of their sovereign discretion, subject only to the condition that such

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simply ought not make. Bundesgerichtshof [BGH] [Federal Court of Justice] May 10, 1983, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 2080 (2081), 1983, *quoted in* STAUCH, *supra* note 52, at 88.

87. Bundesgerichtshof [BGH] [Federal Court of Justice] Apr. 27, 2004, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 2011, 2004, *noted in* STAUCH, *supra* note 52, at 89–90.

88. *See supra* notes 51–52 and accompanying text.

89. James Beardsley, *Proof of Fact in French Civil Procedure*, 34 AM. J. COMP. L. 459, 469–70 (1986) (noting as a justification for this characteristic the "economizing of judicial resources").

90. *Id.*

91. CODE CIVIL [C. CIV.] art. 1349 (Fr.); *see also* PHILIPPE BRUN, RESPONSABILITÉ CIVILE EXTRACONTRACTUELLE ¶ 248 (2d ed. 2009); Suzanne Galand-Carval, *Aggregation and Divisibility of Damage in France: Tort Law and Insurance*, in AGGREGATION AND DIVISIBILITY OF DAMAGE, 154–55 (Ken Oliphant ed., 2009); VINEY & JOURDAIN, *supra* note 63, § 363; Philippe Pierre, *Les présomptions relatives à la causalité*, REVUE LAMY DROIT CIVIL, July–August 2007, Supplement to No 40, p 39 ff. For overviews in English, see KHOURY, *supra* note 46, at 144–46; VAN DAM, *supra* note 35, at 283–84; Duncan Fairgrieve & Florence G'sell-Macrez, *Causation in French Law: Pragmatism and Policy*, in PERSPECTIVES IN CAUSATION (Richard Goldberg ed., forthcoming 2011).

92. CODE CIVIL [C. CIV.] arts. 1350, 1352.

presumptions of fact should be serious, precise and concurrent.<sup>93</sup> Formally, only presumptions of law entail a reversal of the burden of proof, presumptions of fact being made on the basis of the court's evaluation of the evidence in the round.

Both legal and factual presumptions have played a significant role in allowing the imposition of liability in cases of uncertain factual causation. An example of the former is provided by a decision of the *Cour de cassation* in 2001, laying down a presumption of causality where the victim was infected with the hepatitis C virus following a blood transfusion in circumstances where there was no indication of viral contamination from any other source.<sup>94</sup> This was enacted in statutory form the following year.<sup>95</sup> The court has since confirmed that the claimant need only establish a possibility, not a probability, of causation. So, where the victim was found to have been infected following his triple heart bypass, but there were four possible theories to account for the infection—infection prior to the operation, the bypass itself, other invasive procedures before and after the operation, or some later cause—the presumption of causality was raised by the mere possibility that the victim could have been infected by blood products administered during the procedure.<sup>96</sup>

Presumptions of fact may also play an important role in allowing proof of causation notwithstanding uncertainty about what actually occurred. In a recent series of cases, the *Cour de cassation* has accepted that a causal link may be established between hepatitis B vaccinations and the subsequent onset of multiple sclerosis on the basis of serious, precise and concurrent presumptions—that is, presumptions of fact within the sovereign discretion of the first-instance judge—notwithstanding widely divergent opinions in the scientific community and the lack of conclusive statistical data as to

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93. *Id.* art. 1353.

94. *Cour de cassation* [Cass.] [supreme court for judicial matters] 1e civ., May 9, 2001, Bull. civ. I, No. 130 (Fr.); *see also* VINEY & JOURDAIN, *supra* note 63, § 367–71.

95. *See* article 102 of Loi 2002-303 du 4 mars 2002 relative aux droits des maladies et à la qualité du système de santé [Law 2002-303 of March 4, 2002 relating to patients' rights and the quality of the healthcare system], JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE [J.O.] [OFFICIAL GAZETTE OF FRANCE], March 5, 2002, p. 4118.

96. *See* Galand-Carval, *supra* note 91, at 155–56 n.7 (quoting *Cour de cassation* [Cass.] [supreme court for judicial matters] 1e civ., July 12, 2007, Bull. civ. I, No. 272 (Fr.)).

the vaccine's toxicity.<sup>97</sup>

What all such approaches have in common is that they preserve the traditional all-or-nothing rule, and in cases where causation is truly uncertain, they risk injustice to either the plaintiff or the defendant. The all-or-nothing rule is also arbitrary because very small changes in the probability that the defendant's wrongdoing caused the harm have drastic effects on the plaintiff's entitlement to damages. All-or-nothing also allows defendants to systematically evade liability when the risks for which they are responsible, relative to alternative risks, are consistently too low to tip the balance of probabilities, and thus undermines the deterrent effect of tortious liability.<sup>98</sup>

## 2. *Damages for Loss-of-Chance*

Dissatisfaction with the all-or-nothing rule is apparent in several national systems' techniques of awarding damages for loss-of-chance. As in the Third Restatement, it is generally accepted that this approach involves a redefinition of the damage that can ground a claim and not a change of the principles of causation.<sup>99</sup> Loss-of-chance analysis is accepted in one form or another in most European systems,<sup>100</sup> though its application to physical injury cases—as in the classic case of medical negligence reducing a patient's chances of recovery—is mostly limited to nations in the Romantic legal tradition like France, Belgium, and Spain.<sup>101</sup>

In France, loss-of-chance has been considered compensable damage since the nineteenth century, but it was not until the 1960s

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97. See Cour de cassation [Cass.] [supreme court for judicial matters] 1e civ., May 22, 2008, Bull. civ. I, Nos. 147, 148, 149.

98. For powerful judicial criticism of the all-or-nothing approach, see Lord Nicholls's dissenting opinion in the English case *Gregg v. Scott*, where the majority rejected the loss-of-chance approach that Lords Nicholls supported. [2005] 2 A.C. 176 (H.L.) 179–80 (Lord Nicholls) (U.K.). In his dissent, Lord Nicholls argued that the greater the uncertainty about causation, the less attractive the traditional all-or-nothing approach becomes, describing the latter as “crude to an extent bordering on arbitrariness.” *Id.* at 190.

99. See, e.g., H. Koziol, *Loss of a Chance: Comparative Report*, in DIGEST: NATURAL CAUSATION, *supra* note 36, at 589–91 (“It is felt that this problem is not really a causal one but rather a problem concerning the evaluation of the lost opportunity which constitutes the damage.”).

100. See *id.*; VAN DAM, *supra* note 35, at 293–97; Thomas Kadner Graziano, *Loss of a Chance in European Private Law*, 16 EUR. REV. OF PRIVATE L. 1009, 1023–27 (2008).

101. See generally DIGEST: NATURAL CAUSATION, *supra* note 36, at ch. 10.

that it was applied in the context of the lost chance of recovery or survival from an injury or medical condition.<sup>102</sup> The starting point for this development was an unreported decision of the *cour d'appel* (court of appeal) of Grenoble in 1961.<sup>103</sup> Following an injury to her wrist, the plaintiff was x-rayed but her doctor failed to see (as was clearly visible) that she had sustained a fracture; the plaintiff consequently resumed her normal activities.<sup>104</sup> Several years later, she experienced pain while handling a heavy object and consulted another doctor, who discovered the break.<sup>105</sup> In her action against the first doctor, the court found that if the first diagnosis had been correct, this would have allowed the plaintiff to receive treatment that would have prevented the continuing sensitivity in her wrist, and her non-treatment had therefore deprived her of a chance of cure.<sup>106</sup> In another case shortly afterwards, this loss-of-chance analysis was adopted by the *Cour de cassation*.<sup>107</sup> The eight-year-old claimant broke and dislocated his elbow in a fall.<sup>108</sup> The defendant doctor negligently diagnosed only the fracture; the dislocation came to light later.<sup>109</sup> It was disputed what effect was to be attributed to the consequent delay in appropriate treatment.<sup>110</sup> The court found that the defendant's fault deprived the claimant of a chance of recovery for which he was entitled to compensation.<sup>111</sup> It was subsequently clarified that this analysis permitted only partial compensation for the injury.<sup>112</sup> Despite criticism from some commentators, liability for the loss of a chance of recovery is now

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102. VINEY & JOURDAIN, *supra* note 63, §§ 280, 369–71. For an English language account, see KHOURY, *supra* note 46, at 110–14.

103. See VINEY & JOURDAIN, *supra* note 63, § 370 (discussing Cour d'appel [CA] [regional court of appeal] Grenoble, Oct. 24, 1961, RTD civ. 1963, 334).

104. *Id.*

105. *Id.*

106. *Id.*

107. See KHOURY, *supra* note 46, at 110 (discussing Cour de cassation [Cass.] [supreme court for judicial matters] 1e civ., Dec. 14, 1965, Bull. civ. I, No. 541).

108. *Id.*

109. *Id.*

110. *Id.*

111. *Id.* (“The Court of Appeal, with whom the Cour de cassation agreed, nevertheless granted the claim on the ground that serious, precise, and concordant presumptions showed that the boy's damage was the direct consequence of the defendant's fault.”)

112. See VINEY & JOURDAIN, *supra* note 63, § 370 n.175 (citing Cour de cassation [Cass.] [supreme court for judicial matters] Mar. 27, 1973, JCP 1974, II, 17643, note R. Savatier, and Cour de cassation [Cass.] [supreme court for judicial matters] May 9, 1973, JCP 1974, II, 11643, note R. Savatier).

firmly entrenched in French law.<sup>113</sup>

In Belgium, loss of medical chance cases date back to 1984,<sup>114</sup> but a period of uncertainty ensued<sup>115</sup> before the *Cour de Cassation* conclusively recognised the theory in 2008 in a case concerning the loss of the claimant's horse after negligent treatment by its veterinarian, approving a discounted award to reflect the horse's eighty percent pre-treatment survival chance.<sup>116</sup> In the same year, the *Tribunal Supremo*, Spain's high court, also adopted a loss-of-chance analysis in a case where there was a delay in making available a decompression chamber following the claimant's diving accident.<sup>117</sup> Previously, the Spanish courts had used the loss-of-chance concept in a modified form, valuing the lost chance as an immaterial injury in itself and not applying a percentage discount to the "full" damages—it has been claimed that the concept was "correctly used" for the first time in a diving accident case.<sup>118</sup> The *Tribunal Supremo* found that the claimant had been deprived of the opportunity of joining the 71.5% of those suffering similar injuries who, when treated on time, would recover in full, but—withstanding the apparent statistical precision—awarded a round € 90,000 in damages.<sup>119</sup>

113. The authors of the leading modern text on French civil law express themselves "*loin d'être convaincus*"—"far from convinced"—by the loss-of-chance theory, preferring full compensation on the basis of a presumption of causality between medical fault creating an unjustified risk of damage and damage resulting within the scope of that risk. *Id.* § 371.

114. See Isabelle C. Durant, *Loss of a Chance: Belgium*, in DIGEST: NATURAL CAUSATION, *supra* note 36, at 556–58 (analyzing Cour de Cassation [Cass.] [Court of Cassation], Jan. 19, 1984, PAS. 1984, I, No. 548 (Belg.) (holding a doctor eighty percent liable for failing to detect gangrene, which caused the amputation of a patient's leg)).

115. See *id.* at 558–60 (noting a 2004 Belgian high court holding refusing to apply the loss-of-chance theory in a case involving the failure of the local police and prosecutor to investigate or protect a victim from her ex-boyfriend, and stating that "[s]ince the Supreme Court pronounced [this decision], the question has arisen whether the court still admits the concept of the loss of a chance"); see also Isabelle C. Durant, *Une Brève Histoire de la Théorie de la Perte d'une Chance en Droit Belge*, HAVE/REAS, Jan. 2008, at 72, 75–76.

116. Isabelle C. Durant, *Belgium*, in EUROPEAN TORT LAW 2008, *supra* note 43, at 153–55.

117. Jordi Ribot & Albert Ruda, *Spain*, in EUROPEAN TORT LAW 2008, *supra* note 43, at 597, 610–11 (discussing S.T.S., July 7, 2008 (R.J., No. ###, p. 6872) (Spain)).

118. *Id.* at 612.

119. *Id.* at 611 ("[H]e is not compensated for hypothetical detriment . . . but for real, true and effective damage . . . . For these reasons, and taking into account the age of the victim . . . , his profession, and the nature of the sequelae resulting from the loss-of-chance, [€ 90,000 is appropriate].").

The award of damages for loss-of-chance is expressly contemplated in the DCFR,<sup>120</sup> but the theory's application in physical harm cases is rejected in England<sup>121</sup> and Germany.<sup>122</sup>

The loss-of-chance analysis is criticised because it addresses the deficiencies of the all-or-nothing approach only by introducing uncertainty into the legal concept of damage.<sup>123</sup> It is also prone to divert attention away from the substantive merits of imposing some liability on the facts, and tends toward arid discussion of whether what was lost was sufficiently "concrete" to count as actionable damage or whether a diminished, but not totally lost, chance is sufficient.<sup>124</sup> Ultimately the loss-of-chance theory is incoherent because almost everyone accepts that the right to damages accrues only when the actual injury is suffered and not when the chance of avoiding the injury is reduced.<sup>125</sup>

120. The other European harmonisation project prefers proportional-liability through the modification of the normal approach to factual causation. See *infra* Part III.C.3.a; see also Bernhard A. Koch, *Principles of European Tort Law*, 20 K.L.J. 203, 209–10 (2009).

121. See *Gregg v. Scott*, [2005] 2 A.C. 176 (H.L.); *Hotson v. E. Berkshire Area Health Auth.*, [1987] A.C. 750 (H.L.).

122. See Zimmerman & Kleinschmidt, *supra* note 86, at 548–49 (citing Bundesgerichtshof [BGH] [Federal Court of Justice] June 11, 1968, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 2291, 1968 (Ger.) for the proposition that a claimant "cannot discharge the onus of proof since there was, at most, a chance of being cured"); see also STAUCH, *supra* note 52, at 91–92 (noting that the interest in allowing proportionate recovery for loss-of-chance has not "figured in the case law"). For an argument that English and German law should both accept the loss-of-chance theory, see Nils Jansen, *The Idea of a Lost Chance*, 19 OXFORD J. LEGAL STUD. 271, 288–93 (1999).

123. See, e.g., Koziol, *supra* note 99, at 590–91 ("If the chance has no economic value, redefining the damage encounters difficulties because the loss of this chance cannot be qualified as recognisable damage which can be compensated.").

124. *Id.* at 591.

125. See *id.* The same objection applies if it is the plaintiff's exposure to risk that is treated as the actionable injury, as in English law under the House of Lords' *Fairchild* jurisprudence. See *supra* notes 66–73 and accompanying text. For some of the Law Lords, namely Lord Hoffmann, Lord Scott, and Lord Walker, the basis of the liability under *Fairchild* was the wrongful creation of the risk or chance of mesothelioma. *Barker v. Corus UK Ltd.*, [2006] UKHL 20, [2006] 2 A.C. 572 (Eng.). This analysis was expressly rejected by Baroness Hale and Lord Rodger. *Id.* at 605–606, 615. The approach seems difficult to reconcile with the clear statements in the judgment that liability accrues only after the risk materialises, and not before. *E.g., id.* at 578.

### 3. *Proportional-Liability*<sup>126</sup>

An alternative approach, which also leads to partial compensation in respect of the physical harm, is effected by a number of European systems by modifying the traditional approach to causation so as to produce proportional-liability. This remains a minority approach, but it has gained impetus as a result of recent developments in a number of European jurisdictions. It is also the approach proposed by the PETL.

#### a. *Principles of European Tort Law*

The express aim of the European Group on Tort Law's Principles is "to serve as a basis for the enhancement and harmonisation of the law of torts in Europe."<sup>127</sup> Neither enhancement nor harmonisation is given priority. The PETL are not a "restatement" of an existing status quo.<sup>128</sup> They do not simply endorse the lowest common denominator in the tort laws of European systems, or even the majority view, but look to the optimal approach; in particular areas they propose novel or (as yet) only minority solutions to problems where prevailing national approaches are deemed deficient.<sup>129</sup> A case in point is proportional-liability, especially in its application to uncertain-cause situations. As already noted, the PETL provide for proportional-liability even in alternative-defendant cases, where most European systems, like the restatements in the United States, maintain the all-or-nothing approach, albeit with a reversal in the burden of proof.<sup>130</sup> Article 3:106 of the PETL extends the approach to cases of uncertain causes partly within the victim's sphere: "The victim has to bear his loss to the extent corresponding to the likelihood that it may have been caused by an activity, occurrence or other

126. This section draws on the author's previously published work: Ken Oliphant, *Alternative Causation: A Comparative Analysis of Austrian and English Law*, in *FESTSCHRIFT FÜR HELMUT KOZIOL ZUM 70. GEBURTSTAG* 795, 795–812 (P. Apathy, R. Bollenberger, P. Bydlinski, G. Iro, E. Karner & M. Karollus eds., 2010) [hereinafter Oliphant, *Alternative Causation*], and Ken Oliphant, *Proportional Liability*, in *INTERDISCIPLINARY STUDIES OF COMPARATIVE AND PRIVATE INTERNATIONAL LAW*, VOL. 1, 179 (B. Verschraegen ed., 2010).

127. PETL, *supra* note 3, at 16 No. 30. For a short introductory account, see Koch, *supra* note 120.

128. PETL, *supra* note 3, at 16 No. 31.

129. *Id.* at 16 Nos. 30–32.

130. *Id.* art. 3:103(1).

circumstance within his own sphere.”<sup>131</sup>

Under this rule, if a patient were to fall ill after receiving inadequate medical care, but the illness could well have a natural cause, the doctor is liable to the extent that his or her malpractice may have caused the illness.<sup>132</sup> It is also envisaged that the rule could be applied in a toxic tort scenario.<sup>133</sup> The PETL commentary accepts—with something of a degree of understatement—that this proportional-liability approach “is not (entirely) in line with the common core.”<sup>134</sup> In fact, if one distinguishes it (as one should) from the technique of awarding damages for loss-of-chance, proportional-liability as envisaged by the PETL was accepted at the time of their publication only in Austrian law. However, as subsequent developments in English<sup>135</sup> and Dutch<sup>136</sup> law have shown, proportional-liability may well be an idea whose time has come.

*b. Austrian Law*<sup>137</sup>

Proportional-liability was introduced into Austrian law as an equitable solution to cases of alternative causation where one of the possible causes lies in the victim’s sphere (*alternative Kausalität mit Zufall*) and liability cannot be established on the normal standard of proof<sup>138</sup>—variously described as a probability bordering on a

131. *Id.* art. 3:106.

132. *Id.*; see also *id.* at 58 No. 13.

133. See, e.g., *id.* at 58 No. 11 (describing a scenario in which a percentage of residents in a small town fall ill due to negligent emissions). A “toxic tort” is a “civil wrong arising from exposure to a toxic substance, such as asbestos, radiation, or hazardous waste.” BLACK’S LAW DICTIONARY 1627 (9th ed. 2009).

134. PETL, *supra* note 3, art. 3:102; see also *id.* at 46 No. 9 (parenthesis in original). For a discussion on proportional-liability in the PETL generally, see *id.* at 46 No. 8. The PETL Commentary also accepts that liability in cases of alternative causation involving possible non-tortious causes is “quite a step” for some systems and it urges caution in at least some cases in this category (e.g., “new risks” discovered through scientific progress, where litigation may relate to activities which took place long ago). *Id.* art. 3:106; see also *id.* at 57 Nos. 8–9.

135. See *infra* Part III.C.3.c.

136. See *infra* Part III.C.3.d.

137. For an English language overview, see Oliphant, *Alternative Causation*, *supra* note 126.

138. Liability in such circumstances was first suggested by Wilburg before being fully theorised by F. Bydlinski, whose analysis was subsequently adopted by Koziol. See WALTER WILBURG, DIE ELEMENTE DES SCHADENSRECHTS 74 (1941) (Ger.); Franz Bydlinski, *Haftungsgrund und Zufall als alternativ mögliche Schadensursachen*, in AKTUELLE PROBLEME DES UNTERNEHMENSRECHTS: FESTSCHRIFT FÜR GERHARD FROTZ ZUM 65. GEBURTSTAG 3 (M. Enzinger, H.F. Hügel & W. Dillenz eds., 1993)

certainty (beyond reasonable doubt), or, in the majority view, a standard of high or very high probability.<sup>139</sup> The Austrian Civil Code provides expressly for the analogical application of its provisions in cases falling outside the natural interpretation of its terms,<sup>140</sup> and courts and scholars have exploited this latitude by providing first for joint and several liability in alternative-defendant cases, and then for the further extension of liability—though only on a proportional basis—to uncertain-tort scenarios.<sup>141</sup> The reasoning is underpinned by the theory of a flexible system developed by the Austrian legal theorist, Walter Wilburg.<sup>142</sup> In a flexible system, a weakness in a given claim corresponding to one element of liability can be offset by showing unusual strength relative to another element of liability. It may be argued, therefore, that the existence of a merely possible causal nexus should not preclude liability where this can be set off against an unusual degree of foreseeability of damage, i.e., where the defendant's unlawful and culpable conduct posed not just the normally required risk of harm but a concrete dangerousness (*konkrete Gefährlichkeit*).<sup>143</sup>

This extension of (proportional) liability to uncertain-tort cases has been accepted by the Austrian Supreme Court—though not without exception—in decisions from 1990 on.<sup>144</sup> In a decision

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(Austria); Franz Bydlinski, *Causation as a Legal Phenomenon*, in CAUSATION IN LAW 7, 18 (L. Tichý ed., 2007) (Czech); Franz Bydlinski, *Aktuelle Streitfragen um die alternative Kausalität*, in FESTSCHRIFT FÜR GÜNTHER BEITZKE ZUM 70. GEBURTSTAG 3, 30 (O. Sandrock ed., 1979) (Ger.); HELMUT KOZIOL, GRUNDFRAGEN DES SCHADENERSATZRECHTS 140–44 (2010) (Austria); HELMUT KOZIOL, ÖSTERREICHISCHES HAFTPFLICHTRECHT para. 3/36 (3rd ed. 1997) (Austria); Franz Bydlinski, *Haftung bei alternativer Kausalität*, Juristische Blätter [JBL] 1959, 1, 13 (Austria).

139. Ernst Karner, *The Function of the Burden of Proof in Tort Law*, in EUROPEAN TORT LAW 2008, *supra* note 43, at 68.

140. See ALLGEMEINES BÜRGERLICHES GESETZBUCH [ABGB] [CIVIL CODE] JUSTIZGESETZSAMMLUNG [JGS] No. 946/1816, as amended, § 7 (Austria).

141. See Bydlinski, *Causation as a Legal Phenomenon*, *supra* note 138, at 22; see also Kimmo Nuotio, *Some Remarks on the General Philosophy of Causality and Its Relation to Causation in Law*, in CAUSATION IN LAW 27, 30 (L. Tichý ed., 2007) (Austria).

142. See Bydlinski, *Causation as a Legal Phenomenon*, *supra* note 138, at 13; see also KOZIOL, ÖSTERREICHISCHES HAFTPFLICHTRECHT, *supra* note 138, para. 3/31.

143. See KOZIOL, ÖSTERREICHISCHES HAFTPFLICHTRECHT, *supra* note 138, para. 3/33 (proposing the following test: if one were to disregard the other potentially causal acts or omissions, would the defendant's causation of the harm be regarded as so probable, given the spatial and temporal relationship of his conduct to the harm and its concrete dangerousness, that it would have to be considered proven).

144. The theory is not limited to medical cases. See e.g., Oberster Gerichtshof [OGH] [Supreme Court] June 4, 1993, docket No. 8 Ob 608/92, EVIDENZBLATT

of particular interest, dating from 1995, the Court was faced with a claim relating to the birth of an infant with cerebral palsy.<sup>145</sup> This was attributable either to his mother's severe placental insufficiency resulting from her inadequate medical care or asphyxiation induced by the coiling of the child's umbilical cord around him.<sup>146</sup> The Court ruled that, even if it could not be proved that the asphyxiation by the umbilical cord could reasonably have been prevented, and it transpired therefore that an equally probable cause of the disability was a factor within the claimant's sphere, he should nevertheless be entitled to recover damages.<sup>147</sup> If it could not be proved which potential cause was in fact effective, the loss should be divided between the claimant and the defendants in equal shares.<sup>148</sup> As the Court explained:

In cases of alternative causation between the effects of tortious conduct and chance, any other approach would only produce outcomes that, by reason of their extremity, would be unintelligible and unreasonable. One would be driven to the conclusion that either the claimant recovers nothing because of his inability conclusively to determine which of the two factors was in fact causal, or that the defendant is held fully liable even though no causal link between his conduct and the injured claimant has been established. Both extremes are inconsistent with the basic principles of Austrian tort law.<sup>149</sup>

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DER RECHTSMITTELENTSCHEIDUNGEN [EvBl] 1994/13, in 49 JURISTEN ZEITUNG 94 (1994) (Austria). English annotation by B.A. Koch, *Alternative Causes, Including Events Within the Victim's Sphere: Austria*, in DIGEST: NATURAL CAUSATION, *supra* note 36, § 6b/3, 395–97 (noting injuries from blows initially in self-defence but then in retaliation; uncertain which injuries resulted from which blow).

145. Oberster Gerichtshof [OGH] [Supreme Court] Nov 7, 1995, docket No. # Ob 554/95, ENTSCHEIDUNGEN DES ÖSTERREICHISCHEN OBERSTEN GERICHTSHOFES IN ZIVILSACHEN [SZ] 68/207, in JBl 1996, 181 (Austria) (English annotation by Koch, *supra* note 144, § 6b/3, 397–98).

146. *Id.*

147. *Id.*

148. *Id.*

149. *See id.*; *see also* KOZIOL, ÖSTERREICHISCHES HAFTPFLICHTRECHT, *supra* note 138, para. 3/36. Koziol further argues that the weight of the ground of attribution should be reflected in the apportionment. *See id.* para. 3/38.

c. *English Law*<sup>150</sup>

As noted above, liability for material contribution to risk was recognised by the House of Lords in its *Fairchild v. Glenhaven Funeral Services* decision of 2002, subject to the requirement that the possible causes of the plaintiff's injury should be of the same (or at least similar) type.<sup>151</sup> The facts of the case fit into the alternative-defendant category, but the Law Lords' analysis went beyond this. It was an explicit part of their reasoning that liability might also arise where one of the possible causes was non-tortious, for they stated that the same principle also supported and explained their previous decision, dating from 1972, in the much debated case of *McGhee v. National Coal Board*.<sup>152</sup> This was a case of exposure to risk, part of which was tortious, and part non-tortious. The uncertain-tort situation was thus treated as equivalent to the case of alternative-defendants. This analysis was confirmed in *Barker v. Corus (UK) plc*,<sup>153</sup> where *McGhee* was explained as a case of *Fairchild* liability "*avant la lettre*".<sup>154</sup> The Law Lords ruled that it was "irrelevant whether the other exposure was tortious or non-tortious, by natural causes or human agency or [as on the facts] by the claimant himself."<sup>155</sup> Although the injustice of denying the claimant a remedy was weaker in such a case than where his injury *must* have been caused by another person's breach of duty, even if it could not be shown whose, the balance of fairness was still in favour of the imposition of liability.<sup>156</sup> However, although the balance of justice and injustice fell in favour of allowing the claimant some remedy, this did not mean that the injustice to the defendant was negligible. Proportional-liability was a way to "smooth the roughness of the justice" which would otherwise

150. See generally MARK LUNNEY & KEN OLIPHANT, TORT LAW: TEXT AND MATERIALS 230, 230–48 (4th ed. 2010). It may be noted that English common law recognises proportional-liability in both alternative-defendant and uncertain-tort scenarios, though (full) joint and several liability has been imposed in mesothelioma cases by section 3 of the Compensation Act, *supra* note 77. *Id.* at 243–44.

151. See *Fairchild v. Glenhaven Funeral Servs. Ltd.* [2002] UKHL 22, [2003] 1 A.C. 32, 32–33 (U.K.).

152. See *id.* at 36 (citing *McGhee v. Nat'l Coal Bd.* [1973] 1 W.L.R. 1, [1972] UKHL 7, [1972] 3 All E.R. 1008).

153. See [2006] UKHL 20, [2006] 2 A.C. 572, 584–85.

154. See *id.* at 583 (Lord Hoffmann).

155. See *id.* at 585 (Lord Hoffmann).

156. See *id.* at 614 (Lord Walker of Gestingthorpe).

result.<sup>157</sup> As noted already, proportional-liability was quickly restored in mesothelioma cases by Act of Parliament—in both alternative-defendant and uncertain-cause situations.<sup>158</sup> The apparent consequence is that the plaintiff is entitled to recover in full even if only a small part of the exposure to asbestos was tortious.<sup>159</sup>

*d. Law of the Netherlands*

Coinciding almost exactly in point of time with the English *Barker* decision,<sup>160</sup> the Dutch Supreme Court also accepted proportional-liability in situations of alternative causation where one of the possible causes lies within the victim's sphere and causal responsibility cannot be attributed to the defendant on the basis of orthodox principles.<sup>161</sup> In *Karamus/Nefalit*, the claimant's injury was lung cancer, which—unlike mesothelioma—is frequently triggered by factors quite independent of exposure to asbestos.<sup>162</sup> A

157. *Id.* at 592 (Lord Hoffmann).

158. *See* Compensation Act 2006, *supra* note 77, § 3.

159. At the time of writing, the (new) United Kingdom Supreme Court had heard, but not yet passed judgment in, the case of *Sienkiewicz v. Greif (UK) Ltd.*, [2009] EWCA (Civ) 1159, [2010] Q.B. 370 (Eng.). The deceased died of mesothelioma in 2006. *Id.* at 373. Between 1966 and 1984 she had worked at a steel-manufacturing factory owned by the defendant's predecessors in title. *Id.* at 373–74. Although the deceased was an office worker, her duties took her all over the factory premises, and she spent some time in areas that were on occasion contaminated with asbestos. *Id.* at 374. Her exposure to asbestos in these periods was later found to have been tortious (being in breach of either her employer's duty of care or its statutory duty). *Id.* She was probably not exposed to asbestos in any other employment, but, in common with all other inhabitants of the heavily industrialised area where she lived and worked, she was exposed to a low level of asbestos in the general atmosphere. *Id.* It was found at trial, in an action brought by the deceased's daughter, that the total tortious exposure in the deceased's workplace was modest compared with the total environmental exposure and increased the risk due to the environment by only 18% (i.e., 18% of the total exposure was tortious and 82% was environmental exposure that was not proven to be tortious). *Id.* at 375. The Court of Appeal rejected the defendant's argument that, in order to demonstrate causation, the claimant had to show that the tortious exposure at least doubled the risk due to the environmental exposure, and awarded her full compensation. *Id.* at 386–87. Whether this will be upheld by the Supreme Court naturally remains to be seen.

160. *Barker v. Corus UK Ltd.*, [2006] UKHL 20, [2006] 2 A.C. 572, was argued on 13 and 14 March 2006, and judgment was handed down on 3 May 2006. The Dutch decision described in the text was delivered on 31 March 2006.

161. Michael G. Faure & Ton Hartlief, *The Netherlands*, in *EUROPEAN TORT LAW 2006*, *supra* note 74, at 338, 347 (citing HR 31 maart 2006, RvdW 2006, 328 (*Karamus/Nefalit*) (Neth.)).

162. *Id.* at 348.

number of alternative causes were considered: genetic predisposition, the claimant's smoking, and "background risk".<sup>163</sup> These were all, of course, factors in the claimant's sphere. It could not be proven which of the possible causes, whether alone or in combination, was in fact the cause of the claimant's lung cancer.<sup>164</sup> The Dutch Supreme Court rejected an all-or-nothing approach, which would have left the consequences of causal uncertainty exclusively on either the employer or the employee:

Generally, it is, also regarding the scope of the protected interest - preventing health damage of employees - and the violation of the particular norm by the employer as well as taking into account considerations of fairness and equity, unacceptable that uncertainty concerning the degree to which the wrongfulness of the employer contributed to the damage of the employee would completely be shifted to the employee.

... It is equally unacceptable, but in that case for the employer, that even when the latter has violated his duty of care towards the employee, that the result of causal uncertainty would be completely shifted to the employer notwithstanding the not very small likelihood that either circumstances that are attributable to the employee (like smoking, genetic constitution, or aging) or external causes have caused the damage (as well).<sup>165</sup>

The Court therefore opted instead for a proportional-liability approach. It found the employer liable but reduced the damages "to the extent to which circumstances which can be attributed to the employee have also contributed to his damage."<sup>166</sup>

The effect of the decision is dramatic. It goes considerably further than the English case-law, which allows a departure from the but-for test in cases of alternative causation only where the alternative factors are of the same or similar nature. In the Netherlands, there is no such requirement. It is therefore immaterial that the risks of cigarette smoking are manifestly not the same as the risks of exposure to asbestos. Quite how this jurisprudence will be developed in the future is, however, unclear: It seems likely that its application will be assessed on a case-by-case basis.

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163. *Id.*

164. *Id.*

165. *Id.*

166. *Id.* at 349.

## IV. CONCLUSIONS

In the English House of Lords' *Fairchild* decision, Lord Bingham noted the assistance he had derived from comparative legal analysis of the issue under consideration:

Development of the law in this country cannot of course depend on a head-count of decisions and codes adopted in other countries around the world, often against a background of different rules and traditions. The law must be developed coherently, in accordance with principle, so as to serve, even-handedly, the ends of justice. If, however, a decision is given in this country which offends one's basic sense of justice, and if consideration of international sources suggests that a different and more acceptable decision would be given in most other jurisdictions, whatever their legal tradition, this must prompt anxious review of the decision in question. In a shrinking world . . . there must be some virtue in uniformity of outcome whatever the diversity of approach in reaching that outcome.<sup>167</sup>

This deserves to be considered a manifesto for comparative legal scholarship. While Lord Bingham rightly warned against reliance upon mathematics in place of analysis, he made clear that comparative law has value both in highlighting problems that deserve attention and in pointing towards possible solutions. The present survey demonstrates that problems of uncertain factual causation afflict all legal systems, and have widely been considered to warrant the adoption of exceptional rules so as to avoid the unacceptable outcomes that would otherwise arise. Lawyers everywhere can learn useful lessons from the practical experiences of other jurisdictions in developing such approaches. Europeans can usefully learn from the American experience in developing and refining a proportional-liability approach to alternative-defendant cases through the market-share theory. In return, Americans may find inspiration in the new forms of proportional-liability recognised in several European jurisdictions, and also adopted in the PETL, entirely independently of the loss-of-chance

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167. *Fairchild v. Glenhaven Funeral Servs. Ltd*, [2002] UKHL 22, at [32], [2003] 1 A.C. 32, 66 (U.K.). For further consideration of the benefits of comparative analysis, see Ken Oliphant, *Fairchild v. Glenhaven Funeral Services Ltd (2002)*, in LANDMARK CASES IN THE LAW OF TORT 335 (Charles Mitchell & Paul Mitchell eds., 2010). For a sceptical view, see Jane Stapleton, *Benefits of Comparative Tort Reasoning: Lost in Translation*, 1 J. TORT L. 6 (2007).

theory and its associated drawbacks. It seems to the present author that such an approach may provide a more satisfactory mechanism for addressing the problems created by uncertain-tort cases than to trust in the finder of fact's ability to reach a just outcome by exploiting the flexibility inherent in the process of inferential reasoning, and the indistinct line separating reasonable inferences from impermissible speculation, as proposed by the Third Restatement. That approach retains the traditional all-or-nothing outcome, and thus falls prey to all the objections that can be made against the all-or-nothing rule.

It is not, of course, the role of a "restatement" to search out new theories from other systems and recommend their adoption by domestic courts. Nevertheless, if the European experience with proportional-liability takes root, flourishes, and begins to appeal to courts and commentators in the United States, it is not far-fetched to suggest that this approach to resolving problems of uncertain factual causation may merit further consideration when it comes—at whatever remote time in the future—to the preparation of the Restatement (Fourth) of Torts.